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OF
L A R Y N G O L O G Y,
R H I N O L O G Y, A N D O T O L O G Y;

A N A N A L Y T I C A L R E C O R D O F C U R R E N T L I T E R A T U R E R E L A T I N G T O
T H E T H R O A T, N O S E, A N D E A R.

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**RETROSPECT OF DISEASES OF THE PHARYNX,
LARYNX, NOSE, AND EAR, FOR THE YEAR 1892.**

DISEASES OF THE PHARYNX.

In the time at our disposal, anything like an exhaustive review of the diseases of the pharynx is well-nigh impossible. From this cursory glance which only we have been able to give to the literature of the subject, nothing of a strikingly original character, either in the way of improved therapeutics or diagnosis, presents itself for criticism. In the anatomy and physiology of the organ in question the landmarks remain unchanged, while as regards treatment, although some methods—*e.g.*, galvano-cautery—are having their use somewhat restricted, yet, on the whole, diseases of the pharynx are now, thanks to a more enlightened pathology, becoming more amenable to treatment day by day. In perhaps no other class of diseases is it more necessary that treatment should be carried on with perseverance, and over a prolonged period.

These diseases mature slowly, and are often in existence long before the patient presents himself for inspection—long after infiltration and deposit has taken place in the mucosa. Rare indeed is it, again, to find one part alone, to the exclusion of the rest of the upper air tract, the seat of lesion. As a rule almost without exception, continuity of structure marks the range of pathological change, to which there is no other limit: *e.g.*, with change in the pharynx trouble in the larynx soon shows itself; intra-nasal affections are propagated to the pharynx, or it may be from the nose to the accessory cavities, and so on. These features of the diseases we refer to must be considered in laying down the necessary treatment. The absolute impossibility of securing rest to the parts involved must be considered as a factor—and an important one—in delaying

and obstructing the benefit that would otherwise be derived from remedies. While it would seem that the faith in topical treatment is by no means abating, but is rather becoming yearly more firmly established, yet the necessity for treating general abnormal conditions is granted on all hands.

The question of recommending change of clime in throat troubles calls at all times for grave consideration. Take, for example, granular pharyngitis in a patient presenting himself for the first time. To illustrate this point we may cite a case that actually occurred. The patient, suffering severely from granular pharyngitis, consulted different throat specialists. Four of these ordered him abroad at once, prior to any adequate topical treatment being carried out; the fifth (since deceased) suggested that local measures, suitable for reducing the disease, should first be employed, and that the question of a change should be subsequently considered. As a matter of fact the local measures sufficed, and the trip abroad was dispensed with. This illustration indicates the progress, not in treatment alone, but an advance in our knowledge of the nature and course of these diseases.

While condemning rashness or over-zeal in treatment, the last year has shown a due appreciation of appropriate treatment well carried out. Half halting measures were rarely curative, and are often dangerous; e.g., an imperfectly removed pharynx tonsil, we have cause to believe, is most prone to give rise to trouble, heals slowly, and may readily propagate mischief to the middle ear. While agreeing with Barr to the full, we maintain that the characteristic of the treatment of the year that is past has been the increased anxiety and care with which operative measures have been employed. We question indeed if, in the domain of surgery generally, fewer untoward results occur than in the case of operations on the throat. As well take exception, therefore, to the general surgeon who, e.g., removes ovaries, and so on. Provided that the patient is safeguarded by the modern improvements in technique, is physically fit, and due after-treatment possible, then no one duly qualified need fear adopting the operative measures required.

ENLARGED PHARYNX TONSIL.

To the large amount of literary effort usually found devoted to disease of the pharynx tonsil there seems to have come a lull. Attention is directed to complete and thorough removal of every trace of the growth, more especially in the neighbourhood of the ostia tube, where, if remnants of growth are left, these are apt to impinge on the ostia, and, in time, form adhesions to these structures. These tense bands develop, which fix the lips of the Eustachian openings, and materially interfere with their functional activity. In adults, where natural atrophy of the greater bulk of the pharynx tonsil has taken place, still evidence of its past existence is proved by these Eustachian synechiae, to which attention is now directed at throat clinics. That these adhesions interfere with the function of the tubes, and thus indirectly cause deafness, can be demonstrated: for often their severance and destruction at once improves hearing to a noticeable extent. Such natural evidence indicates the part of the tonsil from which most danger is to be anticipated, and also that in

all cases in adults where adenoid structure still remains search should be made for these synechiae, which, if left untreated, may lead to unsuccessful results. Too much reliance ought not to be placed on any form of instrument, be it ring knife or cutting forceps, for removing this tonsil. No instrument, not even the modified Gottstein's curette, can remove the masses of the growth often found protruding into the posterior choanae, filling these up to total obstruction in severe cases. As well for these as for the Eustachian synechiae the finger is the instrument, and the only one on which complete reliance can be placed for their effective removal and destruction.

As Barr has shown in a thoughtful paper, operations in this region are not to be lightly undertaken, and every safeguard is to be adopted. More especially should this be the case in wintry weather, and if the patient has to travel afterwards. That otitis media is not an unknown occurrence after the removal of adenoids no one will deny, and haemorrhage is now and again met with. The choice of an instrument may decide the occurrence of the former, but no matter what instrument is used the point is to avoid the region of the tubes, leaving this part to be dealt with by the finger subsequently introduced. The proper treatment for the remaining general thickening of the mucosa of the naso-pharynx is swabbing out of the space with Lugol's solution with a mop of cotton wool securely fixed on a holder.

GRANULAR PHARYNGITIS.

We now naturally come to the treatment of granular pharyngitis, to the pathology of which nothing new has of late been added. That this is caused, propagated, and maintained by a superimposed lesion in the naso-pharynx in the vast majority of cases is now universally recognized. Where enlarged pharynx tonsil is most frequent, as in children, granular pharynx, both central and lateral, is almost constantly associated. Here the elements of its growth are more cellular and less fibrous than in adults, and consequently more prone to disappear when the tonsil has been duly treated. In no case, then, of granular pharyngitis in an adult can the naso-pharyngeal condition associated be overlooked if success in the treatment is to be expected. The importance of lateral pharyngitis in producing chronic Eustachian catarrh has been referred to by Hovell. The infiltrated lateral band of the disease extends up to the lower lip of the ostium, and often becomes attached to it and clogs its functional activity : various local applications are recommended. For slighter forms of the disease trichloracetic acid, in strong solution, applied on a probe mounted with cotton wool, offers a comparatively in severe and painless method of treatment, especially for centrally situated follicles. The cautery—the most effectual destroyer, properly reserved for lateral pharyngitis—must not be too energetically applied, so as to avoid injuring the underlying muscles, since injury to these, seeing that they open the ostia tubæ, may cause harm.

ATROPHIC PHARYNGITIS.

It will be generally admitted that in atrophic pharyngitis, as in the case of granular pharynx, the diseased condition extends from its seat in

the naso-pharynx down into the oro-pharynx. In this condition the rhinoscopic mirror generally discovers the characteristic green, bad-smelling crusts in the post-nasum. Nothing new towards a better elucidation of this condition is discovered, and as regards its treatment opinion is agreed that this should be directed to the cure of the condition in the upper pharynx. Long-continued and persevering swabbing out of the post-nasum and oro-pharynx with Lugol's solution is the routine measure from which success may be expected.

ERYSIPelas OF THE PHARYNX.

Amongst the graver of the forms of pharyngeal affections to be noted in the year's literature is erysipelas of the pharynx, referred to in an excellent paper by Haviland Hall. In this affection there is no noticeable connection with any external manifestation of the disease in the skin of the face, nose, or scalp. Ryland of Birmingham, in 1837, drew attention to erysipelatous laryngitis occurring without any external manifestation of the disease, while quite recently Gerhardt and Massei assert that the erysipelas cocci are afforded entrance through a physiological wound, or a lesion—e.g., over the base of the tongue, or one situated in a hypertrophied tonsil. In this disease, it would appear, two forms can be distinguished—one where the local disturbances predominate, and again where the constitutional are in excess. Ice, cocaine, and sprays of sub-limate are indicated.

RETRO-PHARYNGEAL ABSCESS.

An interesting series of cases are recorded of retro-pharyngeal abscess in the various magazines of the year. These are, no doubt, connected with the presence of the retro-pharyngeal glands found in early childhood, situated between the pharynx and aponeurosis of the pre-vertebral muscles. These glands, according to Simon, disappear after the third year of life, their existence covering the age at which these abscesses are most frequently noticed, although occurring later in life. In these acute abscesses evacuation of the pus may, with proper precautions, be effected through the mouth, although the general tendency now is to approach the abscess according to Prof. Chiene's plan of opening chronic retro-pharyngeal abscesses dependent on spinal caries—i.e., by external incision along the posterior border of the sterno-mastoid. All danger is in this way obviated, and it can readily be effected even in the case of infants. Drainage and aseptic conditions of the wound are by this plan well maintained. In older children, where this condition has been met with, incision *per oreum* is not attended with any grave risk.

PHARYNGO-MYCOSIS.

Under this term Hemenway has written an interesting paper with cases, bibliography and illustrations. The forms of this affection are due to growths of the *oidium albicans*, *aspergillus fumigatus*, *leptothrix buccalis*, and *bacillus fasciculatus*. The advent of these organisms is favoured by a damaged state of the tissues on which they rest, particularly the tonsils, and the remedy is a thorough application of the galvanocautery to the tonsils, other forms of medicinal applications being found

of no effect. The differential diagnosis from diphtheria rests on the chronic nature of the affection, and absence of fever and systemic disturbance.

TUBERCULAR ULCERATION OF THE PHARYNX.

Tubercular ulceration of the pharynx is several times referred to, the most favourable condition for cure being superficial ulceration, with little induration of the sub-mucous tissue. The galvano-cautery and lactic acid are the favourite remedies, requiring great perseverance in their application. As to diagnosis, epithelial cancer, syphilis and lupus must be borne in mind.

TONSILS.

Of the anatomy and physiology of the faecal tonsils well-nigh all that can be said has been said, to which little has been added during the months we are considering. That they are lymphoid structures resembling Peyer's patches of the small intestine is the accepted belief. They produce no secretion, nor are they absorbent under ordinary conditions—*i.e.*, if their epithelial investiture is unbroken. While theories as to their true function are inconclusive, several authors maintain that, like other lymphoid structures, they are blood-elaborating glands. The leucocytes in their structure are, of course, according to the doctrine of the day supposed to prevent the entrance of micro-organisms into the general economy. That they are often the seat of uric acid deposit must not be lost sight of, and the great benefit in acute and follicular tonsillitis derived by the exhibition of salol is thus partly explained. No doubt septic causes are but the preparation of the soil, and infection may have been otherwise effected. Where the soil is prepared, as in hypertrophic conditions in which rarefaction of the epithelium is the dangerous aspect, follicular disease, parenchymatous abscess, or peritonsillar abscess is produced according to the nature of the invading host. The three divisions of tonsillar inflammation given still remain to the front in accepted classifications.

In reviewing the treatment of tonsillar disease, hypertrophy with recurring acute attacks must be submitted to the guillotine or the galvano-cautery. Haemorrhage after tonsillotomy commands attention in several papers. Arbuthnot Lane refers to a case of recurring haemorrhage after removal of tonsils, where ligature of the common carotid and transfusion were followed by recovery. The man was twenty-one years of age. The destruction of tonsillar hypertrophy in adult cases by galvano-cautery would seem to be gaining ground, and this with a suitable cautery and a good battery can be readily effected. More especially is it indicated in cases of moderate hypertrophy, with adhesion of one or other faecal pillar to the diseased structure, in which case peritonsillar abscess is prone to arise and often recur. In children, with or without an anaesthetic (nitrous oxide or chloroform), the guillotine is used. Superficial syphilitic affections engrafted on enlarged tonsils are recommended to be treated by mixed methods. Internally mercury, and, locally especially, chromic acid once or twice, and regularly each day swabbing with Lugol's solution. Such secondary syphilitic affections of the tonsils are otherwise troublesome to

deal with, *i.e.*, minus the local treatment here indicated. Gummatus infiltration of the tonsils leading to deep ulcers demands the same treatment. Generally the deep cavities left by broken-down gummata have adjoining them the characteristic silvery plaques on neighbouring structures, which aid in the diagnosis from other diseases, *e.g.*, cancer, lupus, etc. In an interesting paper by Dr. Downie (Glasgow) on some conditions hindering clear vocalization, it is shown that an enlarged tonsil is not an organ, that it enlarges the space between the faucial pillars and thus interferes both with faucial action and with phonation.

NEW GROWTHS OF THE TONSIL.

An interesting series of new growths of the tonsil have been recorded from time to time, of which a limited number only can be cited. Cresswell Baber gives detail of a case of lymphoma of the tonsils in a weakly girl, aged fourteen, who was found suffering from what appeared great hypertrophy of the tonsils, and also from swellings in the groin. The tonsils were removed without much bleeding, but returned; arsenic was given, yet the tonsils still kept enlarging, and ultimately the child died of pneumonia. Microscopic examination showed the growth to be a lymphadenoma. A case of sarcoma of the tonsil is recorded by O'Hara, where growth had invaded besides a small area of the tongue and the left half of the soft palate. In order to remove the growth an incision was made from the angle of the mouth to the masseter, a preliminary tracheotomy having been performed. The tonsil was seized with forceps, and the diseased tissues rapidly excised, the galvano-cautery being used to destroy any suspicious parts. The patient rapidly recovered, and lived four years, when secondary deposits in right lung apex carried the patient off. Of cysts of the tonsils McBride bears a record of two (retention cysts); they were both in females. Only discomfort was complained of. The deposit is covered by a layer of mucous membrane, which carries on its surface a fine vascular network. The condition is practically a cyst, due to retention of exuded matter and desquamated epithelium, either within a gland or a crypt. With one such case the reviewer has met. The mucous covering was not quite so pale as McBride describes, and the tonsil was slightly enlarged. The bulbous enlarged area stood out from the general mass of the tonsil, which was in no wise inflamed. Incision liberated a creamy product, while, with the tip of the finger, the cavity was found lined with a smooth membrane.

THE LINGUAL TONSIL.

Amongst the papers of the year devoted to the consideration of the lingual tonsil is one of special interest by Wyatt Wingrave, bearing principally upon the regional nomenclature of the tongue, in which he suggests from embryological data, etc., that all that portion of the tongue anterior to the sulcus terminalis should be called "oro-glossus," that part behind "pharyngo-glossus." In the context reference is made to the existence of ciliated epithelium lining the crypts of lymphoid tissue of the lingual tonsils. To these structures not quite so much literature as might have been expected, considering the *rôle* they play in causing distress, has been

devoted. From what has transpired there would seem to be a consensus of opinion that they participate largely in causing laryngeal irritation and when large enough affect deglutition. Frequently it is noted that they are enlarged where at the same time naso-pharyngeal catarrh exists. When little interval exists between them and the epiglottis, then treatment of them may be justly called for. Hypertrophic conditions are found affecting them not only in adults, but also at ages commencing at ten or twelve years, when a persistent barking cough is an unvarying symptom—a fact reminding us of the term lately used, viz., "the barking cough of puberty," for which no clear physical cause was given. In such conditions as clergyman's sore throat (a vague term) the lingual tonsil is often the *fons et origo mali*. It has also been observed in vocalists. The treatment most advocated is the daily application under the guidance of the laryngeal mirror of Lugol's solution, for which the prescription is—

Iodine bic.	.....	gr. vi.
Iodide of potass.	.....	gr. xii.
Ol. menth. pip.	.....	m. xii.
Glycerini	.....	5 <i>j.</i>

The majority of authorities would seem to have given over the use of the cautery in this dangerous region, from the fact that perilous haemorrhage has occurred more than once, while acute glandular swellings in the cervical region, with severe constitutional disturbance, have also been met with after galvano-cautery applications. The fact that the persevering use of Lugol's paint is generally found sufficient is satisfactory under these circumstances. In all cases of throat syphilis the lingual tonsil area deserves a scrutiny, for here frequently its manifestations are to be found, both during the secondary and tertiary stages. Softening gummata frequently produce deep, crater-like ulcers in one or other lingual tonsil, which might well give rise to thoughts of cancer, but the mixed treatment referred to in the similar condition of the faucial tonsil soon renders a solution of the question. An interesting case of accessory thyroid gland is related by Warren of Boston, springing by its pedicle from the region of the foramen cæcum, the size of a hen's egg.

Wm. Robertson.

L A R Y N X.

INTUBATION.

This most interesting study is engaging the attention of our American *confrères* to a very large extent, and it must be acknowledged that they deserve great credit for their industrious and scientific methods of investigation. Dr. O'Dwyer, whose name must always be associated with intubation, read a paper at the New York Academy of Medicine in November on intubation *versus* tracheotomy, and also with reference to what extent, if at all, intubation had supplanted tracheotomy. The literature of this subject is becoming very extensive, and hence the discussion is welcome in the sense that it gives a reflex of the thought upon this very important question. The paper read by Dr. O'Dwyer seems to have been an exceedingly fair one, and dealt with the various

difficulties and objections which had been offered to his method. The majority of them he considered more theoretical than practical. The minor objections which had been answered previously he did not take time to oppose, but he paid particular attention to a few cases in which difficulties had arisen by the tube engaging in the region of the subglottic folds. His answer to this was that all such, or nearly all such, had happened in the hands of inexperienced operators. The gravest objection of all, he thought, was the difficulty in feeding afterwards, but again, he said if the tube were the proper size and skilfully introduced this difficulty was exceptional. Injury to the parts might arise from the fact that the operation had to be speedily performed. Ten seconds were not safe even to cause the suspension of the respiration in serious cases, hence the hurry of introduction. Moreover, some cases being more difficult to intubate than others, injuries to the parts might arise in a few cases and cause the difficulty of swallowing to which he had alluded. He maintained that age has a very important part to play in the results. For example, in the first year of life the results of intubation were almost *nil*; the third year was better than the second : but after three and a half years age did not play such an important *rôle*.

Dr. PILCHER of Brooklyn also gave an exceedingly interesting and fair reproduction of the views at present held, and reading between the lines it is impossible to ignore the fact that, while a few years ago such a discussion on the other side of the Atlantic would have been nearly all intubation, now it seems to be part intubation and part tracheotomy.

One of the most interesting points brought out in the discussion was by Dr. Lovett, namely; that of 21,000 cases of tracheotomy collected by him 28 per cent. had recovered. It is evident that a comparison between the two methods of operation can only be arrived at accurately when careful statistics of both have been obtained, and we must wait yet for further results before coming to a definite conclusion.

It is interesting, however, to note that many of those who have practised the operation have had an increase in the number of recoveries. For example, Dr. Waxham of Chicago has operated upon 421 cases, with 34 per cent. recoveries in the first 100 cases, 27 per cent. in the second, 34 per cent. in the third, 40 per cent. in the fourth, and in the last 21 there had been 7. It is evident that the second part of Dr. O'Dwyer's paper can easily be answered, inasmuch as the operation is largely being preferred to tracheotomy on the other side of the Atlantic, and indeed elsewhere.

IDIOPATHIC ABSCESS OF THE LARYNX.

The question of idiopathic abscess of the larynx has been raised again by Dr. W. Milligan in the British Laryngological Association, March 1892. An interesting case is recorded, and comparison drawn between it and others of the same. Some light, however, has recently been thrown upon this question by the number of organisms which have been found in the upper air passages, and while the exanthemata may have a great deal to do in the production of such, still the organisms of suppuration are so commonly found in this, as in any other part of the body, that it is

not difficult to understand why a certain number of cases of abscess of these parts should follow a local irritation.

EPIGLOTTIS.

The surgery of the larynx is becoming more and more important each year, and interference in constitutional conditions more common. We are not surprised, therefore, to hear of a paper read at the American Laryngological Association entitled "The troublesome Symptoms caused by the enlargement of the Epiglottis, and the advisability of reducing the size of this cartilage by operative measures." Dr. Rice of New York thinks that in morbid processes of a chronic nature where you have abnormal size due to injury, or excessive use of tobacco, or liquor, or congenital enlargement, it may be effectually and usefully removed in parts by long-bladed scissors, cocaine being used as the anaesthetic. Dr. Wagner has removed the whole of the epiglottis for carcinoma, and has had no bad effect. The future of this work will be watched with interest.

EXTIRPATION OF THE LARYNX.

The operation for extirpation of the larynx, partial or complete, has been performed in a great many centres. During the past year we have had several cases recorded. As yet no definite opinion can be arrived at, but the number of cases on record must now be very large, and one will soon be able to judge of this operation as opposed to the methods suggested by Butlin, or the older one of tracheotomy. What is now wanted is an accurate record of the duration of life after each operation.

VOICE TRAINING.

For a considerable time the difficulties which public speakers, singers, and others experience have been the subject of writing and discussion. A great deal has been heard about the advantages of diaphragmatic breathing, and the disadvantages of clavicular. Three interesting papers bearing upon the mechanism of respiration in singers appeared in the "Revue de Laryngologie" during the year. Moreover, discussions upon this important question took place in the British Laryngological Association in March, and again the subject was brought under notice at the British Medical Association meeting at Nottingham in July. The first of the series referred to was by Dr. Joal of Paris, and it must be said that his careful and excellent article deserves great consideration and careful reading. As a result of personal observation the author thinks that the correct way for singers to breathe is the physiological method of ordinary breathing, namely, the inferior costal type, in which the chest cavity is enlarged at its base with a moderate and normal degree of descent of the diaphragm.

Mr. Lennox Browne, in a letter to the JOURNAL OF LARYNGOLOGY for July, endorses it in so far as to state that the descent of the diaphragm must of necessity be followed up by costal distension. The result of the discussions no doubt will be of great benefit because for a time there was a tendency on the part of some to speak of diaphragmatic breathing only, and so a clearer conception of what each author means will no doubt follow.

The other discussion was that in the British Medical Association, a report of which is to be found in the September number of this Journal, Dr. Sandford read a paper on the "Importance of a Systematic Course of Physical Voice-Training at School and College, with regard to its influence on prevalent Throat Troubles in Public Speakers and others." Mr. Lennox Browne read one, "Faults in Voice Production which lead to Throat Disease," and Dr. Middlemass Hunt "On the Loss of the Singing Voice," while Mr. Ellis read a note on "A Frequent Cause of Throat Irritation and Congestion in School Teachers." These four papers were taken together, and after a prolonged discussion the following resolutions were adopted :—

"In consideration of the injurious influence exercised upon the vocal organs by improper use of their functions, and of the insufficient attention hitherto given to the subject of systematic voice training, the members of the Laryngological Section of the British Medical Association desire to urge upon educational governing bodies the importance of a more general recognition of this subject as a distinct branch of education, especially in the case of those preparing for vocations which require much speaking in public. They would suggest the cultivation of at least an elementary knowledge of the physiology of the vocal organs, and of the principles of scientific vocalization, by school-teachers and others associated with the education of the young."

J. Macintyre.

N O S E.

During the past year satisfactory progress has been made in the etiology, pathology, and treatment of diseases of the nasal passages. A short *r'sum'e* of some of the more important observations published during the year may be of service, not only as an indication of the progress which has been made, but also as a justification, if that be required, of the position of the scientific rhinologist.

From a certain quarter criticism of an adverse nature has been showered upon the heads of workers in this department, to the effect that nasa' surgery is being overdone as a specialty, and that unnecessary intra-nasal operations and manipulations are being practised, which too often bring discredit not only upon the operator himself, but also upon the profession of which he is a member.

During the delivery of the recent Bradshaw lectures upon the surgery of the nose and accessory cavities the lecturer expressed, in words more forcible than polite, his contempt for what had been done for nasal therapeutics during the past few years. He gave expression to statements concerning the views held by certain rhinologists, which, to say the least, were quite uncalled for. Whether the theories of any particular author be accepted or not is certainly open to free discussion, but to hold up to ridicule work which has been gradually elaborated during many years savours at once of want of good taste, and of that feeling of generosity which one professional man expects from his brother.

The past year has been fertile in the production of many new books

and in new editions of earlier treatises. Among English books, the works of Lennox Browne ("The Throat and Nose, and their Diseases." Third Edition. London), Greville Macdonald ("A Treatise on Diseases of the Nose, and its Accessory Cavities." Second Edition. London), and Philip McBride ("Diseases of the Throat, Nose, and Ear." Edinburgh and London), deserve special mention.

From America we hail with great satisfaction Bosworth's work upon "Diseases of the Nose and Throat," one of the most complete treatises upon the subject which exists in any language—a book which will prove of value not only to the specialist, but to the general surgeon as well.

Germany, with that spirit of scientific enthusiasm which she so amply possesses, gives to the profession the works of Carl Rosenthal ("The Diseases of the Nose, the Naso-Pharynx, and the Accessory Sinuses." Berlin. 1892); Jurasz ("The Diseases of the Upper Air-Passages." Heidelberg. 1892); Zuckerkandl ("Normal and Pathological Anatomy of the Nasal Cavity, and its Pneumatic Appendices." Volume II. Vienna and Leipzig. 1892), and the German translation of Massei's book upon "The Pathology and Therapy of the Pharynx, the Nasal Cavities, and the Larynx."

From France we have Dumont's "Practical Treatise on Diseases of the Ear, Nose, Mouth and Larynx," Paris, 1892.

Valuable monographs have also been written during the year by various well-known rhinologists, embracing observations upon various questions of much interest to the profession at large.

At a meeting of the Laryngological and Rhinological Society of Paris held towards the end of last year, Potiquet communicated an elaborate article upon the canal of Jacobson, and its probable rôle in the pathogeny of certain affections of the nasal septum. He showed how there existed a marked tendency for certain diseased states to select that part of the septum in which the canal is situated as the starting-point of various abnormal conditions. He found that the canal of Jacobson, if carefully sought for, could as a rule be demonstrated in the living subject, and showed how important it was to search for it in all examinations of the nasal cavities, as there, in all probability, existed some definite relation between this canal and the various lesions found in its immediate neighbourhood.

Macintyre, in an able paper upon the etiology of affections of the upper respiratory tract, emphasizes the importance of a bacteriological examination of the nasal and pharyngeal secretions being made.

Sedziak writes an excellent paper upon the occurrence of intra-nasal croup (*rhinitis crouposa et fibrinosa*). The slight and transient disturbances of the general state, the absence of swelling in the glands and of typical membranes, the want of any symptoms in the pharynx, nasopharynx, or ears, the absence of secondary paralysis and other diseases, and the absence of contagious properties make up the clinical picture of intra-nasal croup. Bacteriological examination of portions of the membrane removed revealed absence of the Klebs-Loeffler bacillus, and inoculation experiments upon rabbits gave negative results.

In the treatment of hypertrophic rhinitis Scheppegrell advises the

employment of electrolysis. After one careful application most cases show complete removal of the stenosis in from eight to ten days. Pain during the application is said to be slight. After the needle has been removed the punctures are sealed with collodion. This method, the author remarks, is quite as effective as cauterization and diminishes the risks of sepsis.

Braun has found "vibration massage" of use in the treatment of this condition.

The subject of cyst formation in the nose has again led to the publication of several valuable papers. The two main theories regarding their production are (1) that they are due to a rarefying osteitis similar to that occurring in long bones, and (2) to an osteophytic periostitis secondary to hypertrophic rhinitis involving the soft parts.

The intractability of atrophic rhinitis, both fetid and non-fetid, to any form of treatment is the origin of many papers every year. Adolph Bronner has found trichloracetic acid in from 10 to 15 per cent. solutions of decided service in this condition. After freely cocaineizing the mucous membrane, the solution is rubbed into the parts by means of a cotton-armed probe. A snuff consisting of aluminum-acetico-tartaratum, menthol, camphor, and boric acid is used subsequently.

Braun, Kellgren, and Laker speak favourably of the employment of massage vibrations in both atrophic and hypertrophic rhinitis.

Laker performs vibrations which vary from 600 to 2000 per minute, the ordinary duration of each vibration being 0.085 of a second. Special sounds are required for making the applications to both anterior and posterior nares.

Chiari, who has applied this method in many cases, expresses his disappointment with the results.

Bürkner claims that aristol is of value in such cases, while Joins employs glycerine-cotton pledges. The pledges are introduced once or twice daily, left in position for ten minutes, and then got rid of by blowing the nose forcibly. The much-discussed subject of necrosing ethmoiditis has been once more prominently before the profession. According to Sydney Martin, who has examined specimens for Dr. Woakes, the first stage in the process is characterized by swelling of the body and fibrosis of its covering mucosa. The second stage is marked by the formation of granulation tissue or polypus, and by subsequent atrophy of the bone. Necrotic changes in the bone (this is really the most hotly-contested point in the whole theory) are strongly insisted upon.

The question of nasal stenosis and its effects upon the general health and upon organs in the immediate vicinity of the nose naturally claims considerable attention each year. Spencer Watson lays down two important rules—(1) that when there is complete obstruction with much constitutional disturbance, it is advisable to operate by a single operation, and under a general anaesthetic, and (2) that when the obstruction is partial and the symptoms unimportant, the growths being small and easily reached, it is advisable to operate by means of the snare or the electro-cautery, using cocaine, and employing the frontal mirror as a guide during manipulative procedures.

As a result of efficient treatment of nasal stenosis it is possible (1) in young children to prevent deformity of the chest and its attendant evils—marasmus, and even death ; (2) in youths and early adult life to prevent permanent deformities of the chest, deafness, impairment of speech and of the mental faculties ; and (3) in adult life to prevent and even in some cases to cure asthma, spasmodic cough, bronchitis, emphysema, intellectual hebetude, and melancholia.

Dr. Barr of Glasgow has uttered a timely word of caution in reference to the use of nasal irrigations, especially when there exists any marked nasal stenosis. The middle ear in such cases is prone to receive injury, especially among children, and if the act of swallowing be performed during the time the nostril is being irrigated. Sir Wm. Dalby suggests that nasal irrigations should never be made by the patient himself, but by a nurse or someone who has been carefully instructed in the proper *modus operandi*. [*We would like at this point to state that the use of coarse nasal sprays is a much safer and an equally efficient method of cleansing the nasal passages.*]

For the relief of stenosed conditions Gibbons advises the use of intra-nasal tubes formed after a design of his own. The tubes are made of metal, which has the advantage not only of dilating, but also of maintaining the calibre of the nasal passages. The sides of the tube are perforated with minute perforations, which enable the air during both inspiration and expiration to come into intimate relation with the nasal mucosa, and which have the further advantage that even when *in situ* applications can be successfully made to diseased areas.

For the removal of nasal spurs, Major of Montreal has devised a new septum knife. The knife is hook-shaped, and is passed behind the spur. On traction being made the projecting spur is cut off cleanly and expeditiously.

Regarding the frequency of deviated septum, Mayo Collier contends that an enormous number of deflections are due to paralysis or paresis of the muscles of the nose. He argues that obstructions in the nasal passages, whether the result of catarrhal or other causes, increase the external air pressure by rarefaction during inspiration, and that these successive pressures or blows being continued must bend the thin and yielding portions of the septum inwards.

In non-traumatic deviations Chatellier recommends the following operation. After the free use of cocaine a horizontal incision is made parallel with the insertion of the septum in the floor, and a second incision is made vertically in the prominent part of the deviation. The mucous membrane, periosteum, and perichondrium are all cut through. The septal skeleton is then incised to the under surface of the perichondrium of the opposite side. The septum is now separated from the integuments, and the whole of the projecting part removed. The mucous flaps are now replaced, and iodoform tampons keep the parts *in situ*.

The subject of nasal neuroses was introduced at the Nottingham meeting of the British Medical Association by Drs. D. Stewart and A. Bronner. While attributing many reflex neuroses to intra-nasal

irritation, they advised careful treatment of both a local and a general character.

Bosworth speaks very hopefully of intra-nasal treatment in cases of asthma. Permanently good results, he says, are frequently obtained by simply removing the coexisting intra-nasal pressure. While recognizing the fact that in many of these cases a neurotic tendency plays a prominent part, he urges that due consideration should be given to morbid processes within the nose, and publishes several highly illustrative cases.

Spencer Watson considers asthma as not entirely due to the presence of nasal trouble, but as a disease involving the general system and the respiratory mucous membrane as a whole, as well as that of the conjunctiva and lachrymal passages.

Schweinitz records some interesting cases of asthenopia dependent upon intra-nasal trouble, and cured by its treatment. [*No doubt such cases are fairly frequent, but unfortunately the nasal origin of the trouble is too frequently overlooked by ophthalmic surgeons. We would urge the advisability of ophthalmic and nasal surgeons working more in co-operation with one another than has hitherto been the case.*]

In chronic nasal disease, Beverley Robinson suggests the great importance of studying diathetic conditions, whether hereditary or due to contagion or to insalubrious surroundings.

The diseases of the accessory cavities of the nose and their treatment form an interesting and instructive subject of enquiry. Lichtwitz contends that bilateral empyema of the antrum of Highmore is a much commoner condition than is usually supposed. He again recommends the employment of his special trocar and canula passed through the walls of the inferior meatus as of great value, not only as the most reliable aid to correct diagnosis, but also as a means of subsequent treatment. Even if negative results follow the employment of the trocar no harm is done, as the passage of such a small instrument injures nothing, and is accompanied by hardly appreciable pain.

Robertson speaks highly of the value of illumination of the antral cavities by means of an electric lamp placed in the mouth in cases of suspected disease. In opening the antrum he advises the aperture to be made in its anterior wall, and large enough to allow of the introduction of the tip of the finger, so that thorough exploration may be effected. The electric search-light is useful during this latter manipulation. He also makes reference to the frequency of bilateral empyema.

Chiari, writing upon this subject, recommends the opening to be made from the alveolus, and uses tampons of iodoform gauze to pack the cavity. These are to be renewed every week.

Strazza, of Genoa, on the other hand, regards illumination of the cavities as uncertain.

The surgery of the frontal sinuses was discussed by Mayo Collier at the meeting of the Laryngological Association in December. The development of the sinuses was traced, and the main pathological conditions found at times were mentioned.

Robertson regards illumination of the frontal sinuses as of value in

suspected cases. Most other observers, however, have derived but little satisfaction from this method.

Strazza recommends opening the sinuses by means of a transverse incision. He regards the making of a nasal opening as indispensable, and looks upon absence of intermittence of the flow of discharge and of Fraenkel's sign as indicative of frontal sinus affection.

During the year but little literature has appeared upon the subject of diseases of the sphenoidal and ethmoidal sinuses. This fruitful and profitable field for investigation will no doubt soon receive more attention.

In the treatment of myxomatous polypi which show a strong tendency to recur, opening and draining the antrum of Highmore has been followed by marked success. Robertson has found this operation of distinct advantage, not only in cases of recurrent polypi, but also as a means of treatment in cases of ozæna.

During the year several cases of malignant disease of the intra-nasal structures have been recorded. The question of malignant degeneration in what has been a benign growth following upon operative procedures is naturally a question of much importance, but, at the same time, of much difficulty. That more frequent microscopical examination of portions of growths removed should be made, especially where recurrence is rapid, is very advisable. Dr. Newman's recent book upon "Malignant Disease of the Nose and Throat" contains some valuable information concerning malignant intra-nasal disease. For the treatment of nasopharyngeal adenoids several new curettes have been constructed. Munger's heart-shaped modification of Gottstein's curette is, perhaps, one of the most useful. The notch of the heart, rebutting against the posterior edge of the septum, allows the convex ends to pass forward for a short distance into the choanae. Rousseau advises the employment of electric curettes for this purpose, and contends that no method hitherto in vogue is so free from dangerous sequelæ.

Many other new instruments have been devised, and many interesting papers upon nasal subjects have been published during the year, which are of much interest and of much value to the practitioner. Space, however, does not permit of any further remarks, but enough has been written to show that rhinologists are striving to advance the knowledge of their department with that energy and zeal which, come what may, cannot fail to end in the dissemination of valuable information for the benefit of mankind in general.

W. Milligan.

THE EAR.

During the course of the past year we have placed before our readers analytical abstracts of most of the important papers on otological subjects as they appeared. We believe that the following general survey of the matter thus treated will be of interest. We give here only the references to the original papers, as those who are satisfied with abstracts have only to consult the index to the Volume for 1892 of the JOURNAL OF LARYNGOLOGY, RHINOLOGY, AND OTOTOLOGY.

Malformations.—Mr. Heaton (original paper) gives a clear account of the mode of development of the auditory apparatus in relation to the hyo-mandibular cleft. He describes a case of *atresia* of the meatus, with *supernumerary auricles*, and the stunting of the corresponding half of the lower jaw, which is intelligible on developmental grounds. Vali ("Arch. für Ohrenheilk.", Dec., 1891) pointed out the inadvisability of attempting to rectify such congenital malformations by operative opening of the meatus, and narrates a case which looked very promising, but in which the operation had to be abandoned. In *acquired atresia* the case is different, and Gifford ("Arch. of Otol.", 1892, No. 3) operated in a case of cicatrical closure of the meatus from lupus. The operation, as such, was successful, but recrudescence took place in the mastoid cells.

Injuries.—Nothers ("Zeitschrift für Ohrenheilk.", April, 1892) analyzes forty-two cases of *traumatic rupture of the membrane*. In cases of direct injury (from the introduction of a sharp object) the perforation was in the posterior part, whereas in those of indirect injury (explosions, blows, violent inflation) it was in the anterior portion, unless previous disease had rendered any particular part less resistant. Rupture of the drum-head directly from lightning-stroke occurred in Clark's practice ("Arch. of Otol.", Jan., 1892). An explosion of dynamite caused rupture of both drums and concussion of the labyrinth in a case of Bates' ("New York Med. Journ.", Jan. 16, 1892). Sheppard narrates cases ("Arch. of Otol.", 1892, No. 3) of *head injuries with aural complications*—labyrinthine concussion (and inflammation?), fracture of the tympanic bone, rupture of the membrane, fracture of the petrous bone external to the labyrinth. A case of death following a blow on the ear is given by Heimann ("Arch. of Otol.", 1891). There was the usual history of old-standing ear disease, and death resulted from pyæmia; its medico-legal importance is obvious. In a singular case reported by Vaughan ("Indian Med. Gaz.", Feb., 1891), giddiness came on a fortnight after a fall from a horse, which had occasioned cerebral concussion and nerve-deafness.

Auricle.—Spratling ("Med. Rec.", Nov. 21, 1891) describes a case of *haematooma without mental disease* in a robust sailor; the affection was apparently idiopathic, and there was no history of any predisposing cause; the other ear was similarly affected two years previously, and considerable contraction remained. *Perichondritis* of the auricle subsequent to furuncle is graphically described by Pooley ("Med. Rec.", Feb. 6, 1892); Spalding ("Arch. of Otol.", 1892, No. 3) narrates three characteristic cases of *epithelioma* of the auricle; he is in favour of scraping with a sharp spoon, and only using the knife when absolutely necessary; he prefers strapping to sutures for operative or other wounds of the ear. In operations for *out-standing ears* Mr. Tubby ("Brit. Med. Journ.", Dec. 5, 1891) recommends removal of a portion of the cartilage on the back of the concha over and above the usual elliptical piece of skin.

External Meatus.—Some interesting cases of *foreign bodies* have occurred. Shield ("Lancet," April 30, 1892) treated a case of impaction of molten lead in the tympanic cavity by the installation of metallic mercury. Barrett and Ryan ("Lancet," Oct. 15, 1892) suggested that the molten lead was most probably plumbers' solder, as they found that a

leaden bullet was almost unaffected by mercury. Shield found on further enquiry that this was so. Ménière (Paris Soc. of Laryng. and Otol., March 4, 1892) describes a case in which a concave shell was driven into a lady's ear while bathing, and so closely simulated a somewhat anomalous tympanic membrane that its nature was not at first suspected. Smith ("Brit. Med. Journ.", Feb. 7, 1892) reports a case in which a piece of stone had apparently been lodged in a man's ear for thirty-seven years. *Bony growths* are studied by Pritchard, who followed the classification of Cassell. He gives excellent rules for practising or withholding operations; he is in favour of a trephine mounted on a dental engine. Krakauer ("Monats. für Ohrenheilk.", Nov. 1891) showed a specimen of aural exostosis removed with the posterior wall of the osseous meatus of a girl who had several exostoses on the cranium and unilateral atrophy of the face. Roosa ("Med. Rec.", Aug. 6, 1892) described before the American Otological Society a bony growth springing from the posterior wall of the meatus, which on operation was an easily removed thin plate of bone. Blake at the same meeting gave instances of hereditary tendency to aural exostoses. An unusual case of soft papillomata is reported by Lake ("Lancet," Jan. 9, 1892). Würdemann ("Arch. of Otol., 1892, No. 3) describes a typical case of the rare affection *condylomata* of the ordinary canal.

Middle Ear.—Acute otitis is treated of by Botey ("Revista dei Ciencias Medicas," Oct. 10, 1891). He recommends vigorous antiseptics. Wolfenstein reports favourably ("New York Med. Journ.") of the use of a five to ten per cent. solution of hydrochloride of cocaine, repeated with frequency proportional to the severity and obstinacy of the pain. The pathogenesis of *serous transudation* into the tympanum in cases of Eustachian closure ("Zeit. für Ohrenheilk.", April, 1892) is discussed by Scheibe, and the absence of bacteria proved. *Chronic non-suppurative inflammation* receives considerable attention from Dench ("New York Med. Journ.", Sep. 26, 1891, and "Arch. of Otol.", April, 1892). He makes use of a series of tuning-forks, separated by an octave and extending from C, with 128 vibrations per second, to CIV., with 2048, comparing bone with air conduction, after Rinne's method. In the more hopeful cases Rinne, though negative in the lower octaves, is positive in the highest ones, inflation being previously practised, and an unfavourable prognosis is given if there is negative Rinne throughout. He advocates the usually accepted methods of treatment, and is also in favour of intra-tympanic operations. Lichtenberg ("Revue de Lar., d'Otol., et de Rhin.", Oct. 15, 1891) gives a striking account of *collapse of the membrane*. In an article in this journal (JOURNAL OF LARYNGOLOGY, etc., Jan., 1892) on the use of the pneumatic speculum as a routine instrument, the editor points out the importance of recognizing this condition in view of the disastrous results of prolonged inflation, when it is present. In certain *tension anomalies*, indicated by an inability to appreciate the higher pitched sounds, in vocalists or instrumentalists, leading to inaccuracy in tone production, Clarence Blake ("Arch. of Otol.", April, 1892) was able to remedy the defect by the introduction of a small strip of india-rubber, so placed that the middle pressed on the processus brevis, while the extremities hitched

upon the anterior and posterior walls of the meatus. *Lucas's spring pressure-probe* has received further trial at the hands of Professor Walb ("Monats. für Ohrenheilk.", Nov., 1891), who reports some good results from a more energetic use. It required to be used continuously for months.

Suppurative inflammation of the middle ear has been reported by Gellé as resulting from *plugging the posterior nares*, no matter how the plug was made, the length of time of retention being the important element. He had seen it occur, although the tampon was removed within two days (Paris Soc. of Laryn., etc., June 5, 1891). Eitelberg ("Wiener Med. Presse," 1891, No. 23) has known it follow *nasal irrigation* and intra-nasal operations. Brieger ("Monats. für Ohrenheilk.", Oct., 1891) believes with Gradenigo that *lupus* frequently spreads from the nose to the middle ear. *Erysipelas* led to middle-ear inflammation in three cases observed by Würdemann ("Med. News," Nov. 21, 1891); they were remarkable for the absence of relief on the evacuation of the intra-tympanic pus. Gellé (Paris Soc. of Laryn., etc., March and April, 1892) draws attention to the occurrence of *hemianesthesia* of the face, head, and organs of sense in the case of a young soldier, and appends a chart of the fields of vision. Gradle ("Arch. of Otol.", April, 1892) attaches significance to the *odour of the discharge* in chronic suppurative otitis. He considers the disappearance of *facto* the first sign that treatment is efficacious, and its persistence an indication that no curative influence has been exercised. He would then be led to adopt more severe operative measures. *Optic neuritis* was observed by Kipp in a case of otitis media (American Otol. Soc., "Med. Rec.", Aug. 6, 1892). It entirely disappeared after the opening of the mastoid cells, although there were no mastoid symptoms.

Loewe ("Monats. für Ohrenheilk.", Jan. 1892) recommends *treatment of bleorrhœa* of the middle ear by means of plugs of absorbent cotton wool. If necessary he opens into the attic by means of a dental drill, so as to be able to tampon that cavity. *Cholesteatoma*, as a cause of persistence of suppuration and determinant of dangerous sequelæ, was studied by Kühn ("Arch. of Otol.", Vol. xx., No. 4), who quotes the views of various pathologists, and narrates a case of the occurrence of a typical cholesteatoma without previous otorrhœa. Schmiegelow ("Arch. of Otol.", Vol. xx., No. 3) believes they arise from inflammation in the upper cavities of the tympanum, secondary to median or external otitis. The lining membrane, irritated by retained exudation, becomes dermoid, and the layers of cells thrown off internally form a cholesteatoma. Bezold ("Arch. of Otol.", Vol. xx., No. 4) finds granulations present in half the cases of cholesteatoma; they have to be cleared away, and carious bone scraped; ossicles have to be removed and the mastoid to be opened. He associates cholesteatoma with perforations of Shrapnell's membrane, which he attributes to Eustachian catarrh, and he insists on careful treatment of this last condition.

Polyphæ.—Lake ("Arch. of Otol.", April, 1892) examined the structure of eighteen specimens, of which nine were fibroma myxomatoides, four granuloma, two soft fibroma, two firm fibroma, and one angio-fibroma myxomatoides. Du Fougeray ("Annal. des Mals. de l'Oreille," etc., Aug., 1892)

describes a striking case of extreme excitation of the vagus due to aural polypus. He considers that the term "polypus" should be confined to the typical mucous polypus. Of four clinical polypi, one was a granulation tumour, another a papilloma, the third a dermoid, and the fourth a mucous polypus. Mr. Shield ("Lancet," May 28, 1892) dwells on the necessity of purifying the ear by means of solutions of boric acid in alcohol before removing polypi, in order to avoid those septic conditions which are otherwise apt to follow the operation. He describes an interesting case of an aural growth which was reported by Dr. Delepine to be a sarcoma. It was situated at the orifice of a fistula joining the meatus and the mastoid cells. In spite of its histological characters, Mr. Shield considered it analogous to the fungoid granulations found round necrosed bone ("Arch. of Otol.", Jan., 1892).

Removal of one or more of the Ossicles for the cure of chronic suppuration has been further practised and reported on. Milligan ("Lancet," Jan. 16, 1892) discusses the subject, and reports on his experience of four cases in which a successful result ensued after other methods had been unavailing.

Burnett (American Otol. Soc., "Med. Rec.", Sept. 26, 1891) reports other four cases, and explained his views before the Section of Laryngology and Otology of the American Medical Association, June, 1892. He recommends it not merely in the purulent but also in the chronic non-purulent otitis, having found it harmless in those cases where it did no good, but more especially to be adopted in the chronic purulent cases. Luc reports two purulent cases cured *qua* suppuration by means of this operation (Paris Soc. of Laryn., Otol., etc., June 5, 1891). Schmiegelow considers that more careful examination would show perforation of Shrapnell's membrane to be more frequent than is generally supposed, reaching in private practice a percentage of 15%. Of twenty cases the operation was followed by cure in nine, amelioration in eight, no effect in two, and the result unknown in one. Similar results are reported by Jack ("Boston Med. Surg. Journ.", June 2, 1892). Würdemann reported, however, before the Otological Section of the Medical Society, June, 1892, a case in which total deafness followed the operation, but attributes it to a haemorrhage into the labyrinth occurring during the progress of the anaesthetic, which gave rise to frequent cyanosis. The patient was sixty years of age.

The healing of old perforations is said by Theobald to be favoured by an admixture of balsam of Peru to vaseline, with which absorbent wool is moistened and used as an artificial membrane. Sune y Molist ("Bollettino delle Malat. del Orecchio," Jan., 1892) recommends pure collodion as an artificial membrane.

Chiselling operations for chronic suppuration which resists milder treatment were discussed at a meeting of the Otological Section of the Association of German Physicians, etc. ("Monats. für Ohrenheilk.", Nov., 1891). Stacke described his now well-known operation, but Loewe professed to get equally good results by the use of a modified dental drill. Schwartze added his authority in support of Stacke's mode of operating. Kretschmann advocated an operation almost identical with Stacke's. Lane practises a

similar operation, which he has very happily termed "antrectomy" ("Arch. of Otol.", April, 1892). Prof. Politzer (JOURNAL OF LARYNGOLOGY, May, 1892) exhibited before a meeting of London aurists a punch forceps for removing a portion of the wall between the meatus and the attic, so as to lay open that cavity in cases of chronic suppuration.

Mastoid Diseases.—Ferrer and Clark ("Arch. of Otol.", Jan. 1892) continue a series of detailed clinical histories of a number of cases of mastoid disease treated by operation. They illustrate very strikingly the various usual and unusual conditions to be met with. The necessity for establishing the freest possible communication between the antrum and the meatus is enforced, and a very useful modification of Zauful's *rongeur* forceps is described. Knapp ("Med. Rec.", Sept. 26, 1891) narrated before the American Otological Society a case in which the mastoid operation revealed no pus, but in which death ensued from suppuration in the jugular fossa. Politzer (Paris Soc. of Laryng. Rhinol. and Otol., March 4, 1892) read a paper on mastoid disease following influenza. He found a tendency to the shutting off of cortical cells with the result of retention of pus calling for early operative interference. He precedes mastoid operation by paracentesis of the tympanum and the application of ice to the mastoid, but when the case has already lasted two or three weeks, or there is exrudescence after a lull, he operates at once. The operation is slight, as he considers it unnecessary in the cases referred to to establish a communication with the middle ear. Drs. Loewenberg and Gellé opposed the operation, but Dr. Chatellier strongly supported it, and cited cases where abstention from it had resulted in two deaths. Interesting cases were narrated before the American Otological Society ("Med. Rec.", Aug. 6, 1892) by Drs. Pomeroy, Blake, Sutphem and Bacon, and Dr. St. John Roosa reported one of wounding of the lateral sinus by a drill used for opening the mastoid.

Bezold's Perforation of the Median Wall of the Mastoid.—This occurrence is now pretty well recognized, and is well illustrated in cases described by Moll (Assembly of Belgian Laryng. and Otol., June 5, 1892), Guye ("Zeitschrift für Ohrenheilk.", April, 1892), Knapp ("Arch. of Otol.", 1892, No. 3), Randall ("Therap. Gaz.", May 16, 1892).

Contributions to the Operation of opening the Mastoid.—Black ("Lancet," March 26, 1892) employed a gimlet to make the primary opening, which he enlarged by means of cone-shaped burrs. He used spiral wire tubes for drainage. Buck (Med. Rec., July 23, 1892) has devised a hook, with a knob on its posterior aspect to indicate the position of the junction of the upper and posterior margins of the osseous meatus during operation. Robertson (JOURNAL OF LARYNGOLOGY, Dec., 1892) describes the most recent methods of opening the mastoid antrum under the guidance of a bent probe, passed along the posterior wall of the osseous meatus through the natural opening into the antrum. The credit of this innovation is given to Victor Horsley. The "mastoid operation" as practised in Schwartzé's clinique at Halle, is described in a monograph by S. E. Allen (Robert Clarke & Co., Cincinnati, 1892).

Intra-cranial Disease caused by Suppurative Otitis.—Cerebral Abscess has been treated by Daudois ("Rev. Med. de Louvain," 1891, No. 8);

Truckenbrod ("Arch. of Otol.", April, 1892); Polo ("Rev. de Laryngol.", etc., Jan. 15, 1892); Hatch ("Lancet," March 19, 1892); Heinemann ("Med. Rec.", April 23, 1892)—[really a case of intra-dural abscess]; and Maughan ("Brit. Med. Journ.", April 2, 1892).

Cerebellar Abscess ended fatally in a case reported by Harrison ("Lancet," Oct. 1, 1892), and Percy Dean narrates one of recovery, with full details of the method of operating ("Lancet," July 30, 1892).

Extra-Dural Abscess.—In the Otological Section of the Association of German Physicians ("Monats. für Ohrenheilk.", Jan., 1892) Drs. Hecke and Hessler read papers on this subject.

Meningitis by extension from the ear along the sheath of the auditory nerve is described by Milligan ("Brit. Med. Journ.", Jan. 2, 1892), and cases of its occurrence, secondarily to sub-periosteal mastoid abscess, are reported by Dench ("Arch. of Otol.", 1892, No. 3). In a fatal case of basilar meningitis, arising from chronic purulent otitis, Knapp found *post-mortem* distinct evidence of pulmonary tuberculosis (Amer. Otol. Soc., Aug. 6, 1892).

Sinus-Thrombosis.—Shield ("Arch. of Otoi.", 1892, No. 3) describes a case in which both eyeballs protruded to an extraordinary extent.

Pyæmia.—In two cases Parker ("Liverpool Med. Chir. Journ.", Jan., 1892) ligatured the internal jugular vein, and cleared out the lateral sinus. One resulted in cure. Emerson (Amer. Otol. Assoc., "Med. Rec.", Aug. 6, 1892) describes a case in which metastatic abscesses formed, and slow recovery took place. Hecke (Otol. Section of Assoc. of German Physicians, "Monats. für Ohrenheilk.", Jan., 1892) gives reports of two similar cases.

An Ivory Scale, marked with the measurements required in the usual operations for intra-cranial mischief following middle-ear suppuration, has been devised by McNaughton Jones ("Lancet," March 5, 1892).

Intra-tympanic Operations for the Relief of Chronic Ear Disease.—Of the advantages of operations for the separation of adhesions and cicatricial bands formed as the result of suppurative otitis, there is little question. It has long been, and still is, very doubtful whether any benefit has accrued from such operations in cases of sclerotic median otitis, and every contribution to the literature of this subject demands attention. Poli ("Rev. de Laryng., d'Otol.", etc., Oct. 15, 1891) considers them—notably mobilization of the stapes *à la Miot*—free from danger and worthy of trial when ordinary means fail. Blake (Amer. Otol. Soc., "Med. Rec.", Aug. 6, 1892) considers mobilization of the stapes, including stapedio-tenotomy and division of adhesions, of value in cases resulting from suppurative disease, but in the non-suppurative cases he is more in favour of removal of the stapes. He points out the liability to tying down of the stapes by the reduplications found in about eighty per cent. of normal ears. Jack (Amer. Otol. Soc., "Med. Rec.", Aug. 6, 1892) found a remarkable improvement in hearing after removal of the stapes, especially in regard to the human voice. Stetter ("Monats. für Ohrenheilk.", Aug., 1892) has in several cases perforated the membrane and mobilized the ossicles by means of a special hook. Burnett (Amer. Med. Assoc., June, 1892) advised removal of the membrane and two larger ossicles as being

free from danger and likely to giving relief to the symptoms, especially those other than deafness. Randall (Amer. Otol. Soc., "Med. Rec.", Aug. 6, 1892) described a case in which removal of membrane and malleus was followed by severe suppuration, mastoid empyema, and abscess burrowing down the neck. He ascribes it to displacement of the incus into the orifice of the antrum, and would advise removal of that bone in any such operation. In Würdemann's case before mentioned the absolute loss of hearing after operation was attributed to haemorrhage into the labyrinth from the anaesthetic.

Malignant Disease.—Charazac ("Rev. de Laryng., d'Otol," etc., Jan. 1 and 15, and Feb. 1, 1892) gives a careful study and extensive bibliography of malignant disease as affecting the different segments of the organs of hearing. Dalby ("Lancet," July 2, 1892) reviews the cases which have come under his observation. There was generally suppuration from the middle ear and a polypoid growth, with subsequent supervention of pain and facial paralysis, invasion of the mastoid process, ulceration and fungation. Shield's case of sarcomatous growth, and Spalding's cases of auricular epithelioma have already been referred to.

Labyrinthine Disease.—Arno Scheibe has contributed several editions to the morbid anatomy of disease of the internal ear. In one case of old standing deafness he found *post-mortem* complete degeneration of the auditory nerve in all the turns of the cochlea, which showed destructive and plastic changes, the bony framework being also affected. The deafness had existed twenty-three years. The patient suffered from osteo-psathyrosis of his extremities, and osteo-malacia in the vertebrae and spongy parts of the temporal bone. He had basilar meningitis six years before the commencement of the ear trouble, and had previously been the victim of morphinism (Otol. Sec. of the Association of German Physicians, etc.; "Monats. für Ohrenheilk.", Oct., 1891). He examined the labyrinth of a deaf mute who died of phthisis at the age of forty-seven. There were considerable losses of nerve-fibre in the labyrinth, especially the cochlea, sacculus and posterior ampulla. Corti's membrane was in its rolled-up embryonal condition. The innermost convolutions at the base of the temporal lobes showed some cystoid degeneration ("Arch. of Otol.", Jan., 1892). Moos (*ibid*) reports on a labyrinth from children who died from diphtheria. The structures in the cochlea duct were altered through haemorrhage and coagulation and necrosis, which had occurred also in the labyrinthine ligaments. Micrococci and streptococci were freely distributed. Primary labyrinth necrosis, with facial paralysis following scarlatina, occurred in a case described by Toeplitz ("Arch. of Otol.", April, 1892). In a case of deaf mutism from scarlatina, Uchermann ("Zeitschrift für Ohrenheilk.", April, 1892) found considerable ossific and fibrous change, rendering the labyrinth almost untraceable. The left upper temporal and Broca's convolutions were shrunken, the middle ear showed comparatively slight inflammatory changes. He considers such cases due to primary invasion of the labyrinth by micro-organisms.

Barclay ("Med. News," April 30, 1892) describes a typical case of sudden deafness from inherited syphilis, and Mygind gives an interesting study (JOURN. LARYN., Aug., 1892). Of still greater interest is the

contribution on tuberculosis of the labyrinth by Cohnstädt ("Monats. für Ohrenheilk.", May, 1892). He dwells on the significance of the painless onset, and of the detection of tubercle bacilli along with other confirmatory signs, loss of bone conduction indicating labyrinthine affection. Pilocarpin treatment for labyrinthine deafness is spoken favourably of by Field ("Brit. Med. Journ.", April 2, 1892), but Hills ("Lancet," Jan. 9, 1892) had observed complete return of deafness in cases submitted to this treatment by himself and by Mr. Field.

Ménière's Disease.—Bobone ("Bollettino delle Malatt. del Orecchio," Nov., 1891) describes a typical case, and treated it with apparent success by means of valerianate of quinine and aconite. Mongardi (*ibid.*, Feb., 1892) recommends bromide of potassium in large doses (45 grains, thrice daily) valerianate of iron and opium with cascara sagrada. Gellé, under the title of "Ménière's Vertigo," narrates some cases (Soc. of Laryn. Otol., etc., of Paris, Dec. 4, 1891) of vertigo in which, by means of his endoscope, he was able to differentiate those arising from middle-ear disease from those having their seat in the labyrinth. In Bobone's case Ménière's disease was secondary to influenza.

Auditory Cortical Centre.—In a case of "word deafness," following an apoplectic attack due to valvular disease, Mills ("Brain," Winter, 1891) found the first left temporal convolution shrivelled to a thin strip, except at its anterior extremity; there was a depression at the posterior fourth of the second one.

Tuning-Fork in Diagnosis.—Jankou places two otoscopes in the patient's and the observer's ears; a vibrating tuning-fork is placed on the patient's head, and, if better heard through the tube connected with the patient's worse ear he considers the affection tympanic; if through the better ear, labyrinthine. Krzywicki states ("Berliner Klin. Woch.," March 21, 1892) a somewhat complicated case, of which more than one interpretation is possible. Prof. Politzer (JOURN. OF LARYN., May, 1892) described a method of judging of the condition of the middle and external ear by the relative audibility of vibrating tuning-forks held under the nostrils during and apart from swallowing.

Deaf Mutism.—Uchermann's case of deaf mutism from scarlatina has been already mentioned. Miller ("Lancet," June 4, 1892) draws attention to the curability, by ordinary simple otological treatment, of some cases of acquired deaf mutism.

Tinnitus.—*Audible noise*, due apparently to rhythmical contraction of the tensor tympani, was observed by Szenes (Pesth) ("Centralblatt für Klin. Med.," 1891, page 871). Richardson reported to the Section of Laryngology and Otology of the American Medical Association, June, 1892, a similar case, where the spasm of the muscle was evidently due to centric irritation, the patient dying of pachymeningitis.

EAR AFFECTIONS ARISING IN CONNECTION WITH GENERAL DISEASES.

In addition to those resulting from *scarlatina* and *diphtheria* already cited, the following have been reported:—

Influenza.—Sir Wm. Dalby asserts ("Lancet," Feb. 20, 1892) that

those only who have previously suffered from ear disease need fear any serious affection of that organ during influenza. Downie and Stewart (*ibid*, March 5 and 12, 1892) insist that severe cases have occurred under their observation, in which there has been no previous affection of the ears. O'Toole (American Med. Association, June, 1892) gives statistics supporting the latter view, and analyzes the very severe series of cases observed by him. Politzer discussed the treatment of influenzal mastoiditis, as we have already mentioned, before the Paris Soc. of Laryng., &c., March 4, 1892. Bobone's case of Ménière's disease ("Bollet. delle Malat. del Orecchio," Nov., 1891), consecutive to influenza, is of interest.

Mumps, as a cause of labyrinthine deafness, is illustrated by Gellé's case (Paris Soc. of Laryng., &c., June, 1891). He found pilocarpin of no use.

Tubes Dorsalis is not often a cause of ear disease. Habermann (Association of German Physicians, Sep. 21, 1891) describes the morbid anatomy of a case observed and dissected by him.

Arterio-sclerosis is referred to by Church as an important cause of vertigo simulating aural vertigo, and Bonnier ("Lancet," Aug. 27, 1892) describes "auricular Brightism," a form of Ménière's disease determined by uræmia. Church recommends iodide of potassium : Bonnier, exclusive milk diet and avoidance of quinine.

Typhoid Fever as a cause of disorders of the ears is discussed by Beverley Robinson ("Med. Rec.," Sep. 3, 1892), who quotes the views of various authorities. He points out the necessity for frequent inspection of the ears in all cases.

MISCELLANEOUS REMEDIES.

Dermatol (sub-gallate of bismuth) is found of very moderate advantage in otorrhœa by Szemes ("Monats. für Ohrenheilk.," Nov., 1891), but the *soluble salts of bismuth*—the double iodide of bismuth and potassium in particular in one per cent. solution—is highly extolled by Garnault (Paris Soc. of Laryn., etc., March 4, 1892). *Cocaine* is found useless in cases of tinnitus according to Szemes (*loc. cit.*). Wolfenstein recommends its energetic employment by instillation in acute inflammations of the middle ear. *Peroxide of hydrogen* (fifteen volume solution) receives great praise from Johnson (American Med. Association, June, 1892) as an antiseptic in ear disease.

MISCELLANEOUS INSTRUMENTS.

Intra-tympanic Syringes of new form have been introduced by Pritchard ("Arch. of Otol.," Jan., 1892) and Milligan (JOURN. OF LARYN., Nov., 1892), the latter fed by an elevated reservoir, so that great steadiness is attained. Politzer has adapted soft rubber tips to his intra-tympanic syringe (JOURN. OF LARYN., May, 1892), and Delstanche has devised soft rubber intra-tympanic tubes with a concealed mandrel (mandrin caché), so as to retain any curve (Meeting of Belgian Laryngologists, etc., June 5, 1892).

Eustachian Bougie has been introduced by Dench ("Arch. of Otol.," April, 1892), so contrived as to slide through guides on the convex surface of a silver Eustachian catheter.

The Eustachian Self-Inflator, devised by Dundas Grant (Journ. of Laryn., Jan., 1892) for the inflation of diluted chloroform vapour by the patient, has been a good deal employed.

Ward Cousins' Speculum has attached to it a lens and a reflector, and the patient's head rests on a padded crutch ("Brit. Med. Journ.," Jan. 16, 1892).

The above is a condensed review of a year's work in Otology. Papers of undoubted importance may have been overlooked, but an endeavour has been made to follow up the various paths along which progress has been made.

Dundas Grant.

ANNOTATIONS.

THE ROYAL COLLEGE OF SURGEONS AND RHINOLOGY.

MR. CHRISTOPHER HEATH recently delivered a lecture before the Royal College of Surgeons upon Diseases of the Nose. It is rather difficult to find what object the lecturer aimed at by choosing this particular subject. Mr. Heath is known to be a leading general surgeon, but we are not aware that he possesses any great reputation as a rhinologist. We should, therefore, have expected that in dealing with so special a subject as rhinology in general he would have exhibited some modesty in his utterances, but we regret to find that this is far from being the case. It is rather a matter of surprise that one presuming to lecture the Royal College of Surgeons should exhibit such a superficial acquaintance with the subject. We cannot, therefore, suppose that the lecturer intended to instruct his hearers upon any debateable points in rhinology, although he chose a comprehensive title. What other object he could have had in view is difficult to imagine, but two important points must strike the reader; either he intended an attack on rhinology in general as a specialty, or he intended an attack upon certain individuals, which can scarcely be regarded otherwise than as an abuse of an official position, of a very gross and utterly unwarrantable nature.

We must confess to having heard sundry whispers long before this lecture was delivered, that it was to produce some "fun"—fun of the "Donnybrook fair" kind apparently. Judging by the many angry comments which have reached us, both in writing and orally, the result of the lecturer's efforts has been to raise a storm of indignation. Had he chosen to adopt a conciliatory method he might have succeeded in smoothing down some of the rough edges of the controversy between specialism and general surgery. He evidently "kicks against the pricks," and prefers to exhibit an undignified amount of ferocity in doing so. It is no part of our intention to justify the position of rhinology as a specialty; that is long ago accepted by all, except those who close their eyes and ears, and adhere to ancient methods and ideas.

¹ "The Surgery of the Nose and Accessory Cavities." The Bradshaw Lecture, delivered at the College of Surgeons on December 1, 1892. "Brit. Med. Journ." Dec. 2 and 13.

We cannot regard his remarks about Dr. Woakes in any other manner than as wholly unjustifiable. Whatever may be our ideas as to "Necrosing Ethmoiditis," that is not the question. It is a serious matter to make statements such as Mr. Heath thought fit to make, in a place where his opponent was debarred from answer. Dr. Woakes has replied to this charge in some very temperate remarks in the "British Medical Journal" of December 17th, 1892, and he is quite able to defend himself. Apart from the scientific aspect of this question, there is a much graver one—namely, the singular absence of professional feeling displayed by one who, from his position, should have set a better example to his younger brethren.

The lecturer's want of proper critical feeling is also well displayed in his remarks upon Mr. Mayo Collier's paper upon the "Etiology of Deviations of the Septum." He quotes a synopsis, holds the writer (who by the way is a not undistinguished Fellow of the same College as the lecturer himself) up to ridicule, entirely distorts his views, and finally admits that he has never read the original paper! We can scarcely interpret Mr. Heath's lecture in any other light than an attack upon rhinology in general and upon certain individuals in particular. It was, indeed, rumoured some time ago that the College of Surgeons was about to make a "dead set" against rhinology and certain specialists, and several names were freely circulated as about to come under the collegiate censure. The head and front of their offending was said to be that they practised rhinology as a specialty. If Mr. Heath has been chosen as the whipping-rod, a singularly ineffective weapon has been selected to flagellate these professional renegades. The individuals castigated have a right to feel indignation, but others cannot view the spectacle of a distinguished Fellow of an honourable society abusing his position, and bringing discredit upon the corporation, without pity. A College, too, which within recent memory has been so singularly select in its interpretation of professional etiquette, should be the last place where one might expect to find among its shining lights such a lapse from professional virtue as this extraordinary lecture exhibits! Verily is the ancient saw of the stones and the glass houses exemplified! But, as often happens, they who are most outwardly virtuous are least inwardly immaculate.

LARYNGOLOGY IN GLASGOW.

AN important new departure has been taken by the managers of the Glasgow Royal Infirmary. A complete department has been created for diseases of the nose and throat, and special wards have been set apart for this purpose. Dr. John Macintyre has been appointed surgeon to the wards, and Dr. Fullerton to the dispensary for diseases of the throat and nose, and the surgery of these diseases will henceforth be on the same footing as general surgical and other work. In recommending that laryngology and rhinology shall henceforth be recognized as distinct and important specialties, the directors of the Glasgow Royal Infirmary have taken a very wise step, and have proved themselves to be abreast of modern developments. They have set a good example to London; where such

recognition is accorded in a very half-hearted fashion, when it is given at all.

We also learn from Glasgow that this city is becoming an important teaching centre, and that large classes of graduates and students follow the instruction there given.

The position at Glasgow is, we believe, a somewhat unique one in the Scotch schools, but it indicates the tendency towards special work. Glasgow only wants a Bradshaw lecturer now, to put the "Scotch" on the wheels of rapid progress!

DEATHS OF SPECIALISTS.

WE regret to have to record the death of Dr. Charazac. He is perhaps best known as the collaborator of Dr. Moure in the translation of the work of the late Sir Morell Mackenzie on diseases of the nose, but he was well known as the writer of several interesting monographs and papers upon special subjects in rhinology and otology. Amongst the most important of these is a recent monograph upon malignant tumours of the ears. Dr. Charazac was only thirty-four years of age at the time of his decease, and French specialism has been robbed of a bright and promising young enthusiast by the untimely death of this young surgeon. We hope to deal more in detail with the facts of his career in an obituary notice next month.

We regret also to record the recent death of Dr. Franklin T. Hooper, of Boston, a very distinguished American laryngologist, at the early age of forty-two. We hope to notice Dr. Hooper's life and work in our next number.

ERRATUM.

IN the report of the Meeting of the Italian Laryngological Society, the papers upon "Functional Energy of the Acoustic Nerve," "On Bone Conduction in Otitis Media in general," etc., and "On the Functions of the Otologist and Laryngologist in Institutions for the Deaf and Dumb," which were attributed to Prof. Gradenigo, should really have been credited to Prof. Grazzi, by whom they were presented to the Congress.

THE space of the Journal is so occupied this month by the report of the Meeting of the British Laryngological Association, and by the reviews devoted to the record of the progress of Laryngology and Rhinology, etc., that we are compelled to hold over for our next number the abstracts of current literature.

ASSOCIATION MEETINGS.

THE BRITISH LARYNGOLOGICAL AND RHINOLOGICAL ASSOCIATION.

Friday, 9th December, 1892.

Dr. SANDFORD (Cork), *President*, in the Chair.

Dr. W. MILLIGAN.—*Case of Intra-Nasal Sarcoma.*

Mr. President and Gentlemen.—In July of this year, Miss S., aged forty-five, consulted me on account of obstruction of the left nostril and total loss of smell. She stated that twenty years previously she had had a polypus removed from the left nasal passage, and subsequently had had the base of the growth freely cauterized. She experienced no further trouble from this nostril until about seven years ago, when the nasal passage again became partially occluded, and a profuse secretion was constantly present. A polypus was again removed—this time, however, in a very crude manner. The projecting part of the growth was cut away with scissors, and other portions were dragged upon with forceps. She states that haemorrhage was very severe at the time. No after treatment was adopted.

Two years ago she consulted a distinguished gynaecologist for some uterine trouble. A uterine polypus was removed with very marked relief to all her sufferings. In the early part of March of this year she became aware that the left nasal passage was again somewhat obstructed, and noticed also that the left lower eyelid was somewhat swollen in the morning. A considerable nasal discharge was present. The discharge was frequently foetid, and at times she had slight attacks of spontaneous haemorrhage. An occasional boring pain in the left infra-orbital region caused her a good deal of anxiety. From March to July all the above symptoms became somewhat aggravated. Her family history was good. Her father and mother are both alive and healthy. One brother died of rheumatic fever. Her four other brothers are alive and in perfect health. She has had four sisters; one died in infancy, the others are healthy.

On examination the left lower eyelid was found considerably swollen and puffy. Epiphora was present to a slight degree. The left nasal cavity was found partially occluded by a mass of polypous-looking tissue. The growth appeared to spring from the mucous membrane covering the middle turbinated bone and to spread backwards almost to the postnasal spine, and laterally towards the maxillary antrum. Examination—with Voltolini's electric lamp placed in the mouth—showed the antral area upon the affected side to be opaque.

The age of the patient, the history of the trouble, and the occasional attacks of spontaneous haemorrhage from the nose pointed to the proba-

bility of the growth being malignant. A small portion of the growth was accordingly removed with a cold wire snare (traction being made extremely slowly) for the purpose of microscopic examination. Very severe haemorrhage attended the removal of this portion of the growth. So much was this the case that after ineffectual attempts to arrest it by plugging the nostril, and the use of perchloride of iron, resort had to be had to the galvano-cautery.

Microscopic examination proved the growth to be a myxo-sarcoma of a peculiarly vascular nature. The patient was advised to submit to operative interference of a radical kind.

On August 2nd the patient was put under chloroform, and Mr. Thorburn, of the Manchester Royal Infirmary, laid the left nasal cavity freely open by means of an external incision, and removed the growth with spoons and scissors. The maxillary antrum was also opened, and its mucous membrane, which was likewise affected, freely curetted. During the performance of the operation haemorrhage was very severe, and the patient became almost pulseless. Rectal injections of brandy and hypodermic injections of ether had to be given. The parts were very freely doused with warm water, and then painted with Whitehead's solution.

Recovery was fairly rapid, and since the performance of the operation the patient has been fairly comfortable.

Remarks.—The case appears to me to be of particular interest from the fact that we have here in all probability to deal with a case of nasal polypus which has undergone malignant degeneration.

The history of the case points to the conclusion that originally the growth was a simple nasal polypus. The duration of the trouble is, I think, positive evidence against the growth having been originally malignant. It must not, however, be forgotten that benign and malignant neoplasms may co-exist in the same nostril. In this particular case, however, careful search showed that only one growth was present, and microscopic examination showed that it was sarcomatous in structure.

It is an interesting point in such cases as to whether the malignant degeneration is due to the effects of operative interference or to some inherent tendency in the growth itself. It is somewhat curious, I think, how seldom we meet with such cases considering the enormous numbers of people who suffer from nasal polypi, and the rough and ready forms of treatment they have so frequently to submit to. Bosworth,¹ speaking of this, says, "This question is naturally much confused, in that it may be that those cases which have undergone malignant degeneration have been largely the result of crude methods of extirpation, rather than of any inherent tendency of the myxomatous tumour to undergo this form of degeneration."

J. W. Hulke² reports the case of a nasal polyp, which after operation at varying intervals of time developed into malignant disease.

Newman,³ in his recent book upon "Malignant Disease of the Throat

¹ "Diseases of the Nose and Throat," vol. i., p. 395.

² "Ophthalmic Hospital Reports," vol. iv., p. 22.

³ "Malignant Disease of the Throat and Nose," p. 141.

and Nose," records the case of a German, aged forty-eight, who for a year had suffered from nasal polypi which had been operated upon a number of times with forceps, followed by rapid recurrence. On coming under his care, Dr. Newman removed a number of small polypi, and came down upon a soft grumous-looking mass springing from beneath the middle turbinate bone, which bled profusely on the slightest manipulation. On microscopic examination, this proved to be an angio-myxo-sarcoma. The mass was successfully extirpated with a cold snare, and when seen six months afterwards there was no recurrence.

Lennox Browne states that after operation polypi assume more of a fibrous character, and that under the microscope they frequently show evidences of sarcomatous degeneration.

Marmaduke Shield⁴ records a case in which extensive malignant disease was found underlying a common myxomatous polypus which presented the peculiarity of rapid recurrence and frequent bleeding.

Bowlby⁵ mentions three cases of nasal sarcoma, two of which were at first thought to be instances of common polypi.

Regarding the treatment of intra-nasal sarcoma, an operation should be undertaken when there is the least prospect of being able to remove the whole of the growth. The prognosis in nasal sarcoma is somewhat more favourable, I think, than in nasal carcinoma, although of course it must always be very guarded. Removal of portions of the tumour tend only to accelerate its growth. Operative measures must be radical to be of any avail. The nasal passage must be freely laid open, and every portion of the growth carefully removed.

Mr. LENNOX BROWNE asked whether there had been any previous microscopical examination of the growth? (Dr. MILLIGAN said that he believed not.) He thought it behoved specialists to submit to microscopical examination more of these supposed polypoid growths, to see how early this degeneration took place. It was of course very difficult to say whether or not the degeneration was the result of previous operative irritation, and he had purposely been very guarded in his utterances on this subject. He himself could recall two cases of the kind. He asked whether anything further was heard of the uterine trouble. (Dr. MILLIGAN said it was a simple polypus of the uterus, and there had been no recurrence.) He observed that the case was an example of what had been termed the "polypoid diathesis." With respect to the practice of douching the nasal cavities, he said it had long been given up by rhinologists as contributing to the causation and recurrence of the diseases it was intended to relieve.

Mr. GEORGE STOKER had seen two cases which he thought were of interest in reference to Dr. Milligan's paper. One was that of a lady, who for several years had suffered from haemoptysis, occurring usually in the morning. About the time the bleeding began she had had pneumonia, and tuberculosis had been diagnosed; but beyond the haemoptysis there were no indications of pulmonary disease. On examining her nose he found a large spongy mass springing from the posterior part of the left

⁴ "Lancet," July 4, 1891.

⁵ "British Medical Journal," March 21, 1891.

nferior turbinal ; it was extremely vascular, and bled freely on the slightest touch. A small portion of the growth was removed with the cold snare, for microscopical examination. This was followed by some bleeding for twenty-four hours. When he proceeded to remove the growth as a whole the galvano snare was used, and but little bleeding ensued. That was in August last. Since then the haemoptysis had greatly decreased, and the patient's general health had much improved. However, the growth had recurred, but it did not now present the same appearances as at first : the rough, corrugated, wrinkled character having given place to an appearance more like that of the normal condition of the inferior turbinal. The other case was that of an old woman, over seventy years of age. On examination a large spongy mass was seen filling the left nostril. A small piece was removed for examination. The removal was followed by profuse bleeding, and it was necessary to plug the nose. A few hours later a piece of soft, friable tissue passed through the naso-pharynx into the mouth. The growth proved to be a sarcoma, but in view of the age of the patient no operative interference was thought advisable. Nine months later the patient was still alive, but he had no further news of her condition.

Mr. BARK (Liverpool) related two cases of intra-nasal growth of a malignant nature. The first occurred eight years ago, and resembled the case narrated by Dr. Milligan. The patient was a man, aged forty, who came complaining of nasal obstruction and recurrent attacks of haemorrhage. There was a large fleshy mass filling up one nostril, growing from the outer wall of the nasal cavity. A piece was removed by the snare, and proved to be microscopically round-celled sarcoma. He was at that time much fonder of radical measures than he is now, and he therefore removed part of the superior maxilla. The patient did well for twelve months ; then recurrence took place in the orbital plate, extending through the sphenoidal fissure to the cranial cavity, and death ensued. In this case there had been no other operation performed.

The second case was of a growth filling one nasal cavity, which a general surgeon tried to remove with forceps a month previously, causing profuse haemorrhage, lasting about three weeks. Microscopical examination of the growth showed it to be an adeno-carcinoma. It sprang from the roof and the outer walls, and had extensive attachments. The patient wished the snare to be used, but he explained to her that recurrence was to be apprehended unless radical measures were adopted, and he suggested removal of the superior maxilla. She asked time to consider, and three weeks later he heard that she had died from brain complications. In this case the operative interference was too recent for there to be any reason to suspect that it had any influence in altering the character of the growth.

Mr. WYATT WINGRAVE observed that the differential diagnosis between polypus and myxo-sarcoma, for example, was at all times very difficult, even with the aid of the microscope. Referring to Dr. Milligan's specimen, he believed it to be merely mucoid hypertrophy of the mucous membrane. The growth was composed of connective tissue fibres, with large spaces filled with mucoid material, in which were embedded large

cells such as are found in many other situations. The only evidence in favour of a diagnosis of sarcoma was that the cells were remarkably uniform in size, but he had observed that same condition in a specimen removed from a case of atrophic rhinitis (specimen exhibited); and he did not think that it was possible to distinguish between the two. He submitted, therefore, that one is never justified in stating definitely that a growth was malignant on the strength of a microscopical examination. It was otherwise, of course, if they came across a characteristic arrangement of epithelial cells in situations where no epithelial cells ought to be, but where the arrangement of the cells was compatible with normal structure no such conclusion was justifiable.

The specimen was described as an angioma, but while he admitted that there was an abundant supply of blood-vessels he did not think that there were sufficient to constitute an angioma. These vessels had very thin walls, and this explained the haemorrhage that resulted on removal of a portion of the growth. They could not believe in sarcoma growing without irritation of some kind, consequently it seemed highly probable that operative irritation might provoke the malignant transformation. He objected to the use of the term sarcomatous "degeneration" as applied to a polypus.

The PRESIDENT had had a case resembling the one mentioned by Mr. Stoker. The patient, a strong country woman, came to the hospital complaining of obstruction of one nostril, with severe haemorrhage from time to time, the inferior turbinated bone being covered with an extremely vascular villous growth. He attempted to remove it with a snare, but just when he had seized it the patient grasped his arm and pulled, with the result of dragging away the growth together with the inferior turbinated bone.

Mr. LENNOX BROWNE remarked that there were several points of interest in Dr. Milligan's case which he had so graphically described; the first was that of the polypoid diathesis, so to speak, to which he himself had drawn attention in his book, having found not only that patients with nasal polypi had often similar growths in other parts of the body, but that there was also a frequent family tendency to new formations in several members of the same family.

Mr. Lennox Browne had only seen two cases of malignant disease of the nose, one long the subject of operation for recurrent polypi believed to be benign, and another in a patient who attributed his nasal disease to the frequent passage of an Eustachian catheter.

Allusion had been made to crude methods of operating as being possible etiological factors of malignancy, and on this point it was interesting to refer to a lecture published in the current number of the "British Medical Journal," in which the writer considered that "in removing nasal polypi of any size . . . it is essential to introduce the left forefinger into the posterior nares, so as to guide the forceps." And that when "the nostrils are once sufficiently cleared they should be thoroughly irrigated."

Mr. Lennox Browne ventured to think that in the first place a good speculum and a brilliant light were far more essential for success in

these operations than the use of the finger behind the soft palate, and of course these two measures could not be employed together; further that specialists were not content until the last morsel of polypoid growth had been removed, and lastly that irrigation and douching had long since been given up by rhinologists as contributory to formation and recurrence of the disease it was intended to relieve.

Dr. MILLIGAN, in reply, said he was very much interested in the various cases of the kind narrated by the speakers. He remarked, in answer to Mr. Wingrave, that the growth bore more resemblance to an angio-sarcoma than to an adeno-sarcoma. He agreed that it was not wise to rely exclusively upon the results of a microscopical examination, but rather upon the clinical features and the effect of operative measures.

Dr. W. MILLIGAN.—Case of Malignant Disease of Tonsil.

W. B., aged forty-nine, came to the hospital complaining of pain and difficulty in swallowing, and also of occasional sharp-shooting pains in the left ear. His symptoms had really lasted for about nine months, although it was only during the previous week that he had suffered to any considerable extent. He was somewhat emaciated, and had an anxious and careworn expression. There was nothing special to note in his previous history. He denied ever having had syphilis. He smoked in moderation, and at no time had he been addicted to drink. None of his relatives, so far as he knew, had ever suffered from malignant disease. On examination the left tonsil was found considerably enlarged and very hard. The surface of this hypertrophied portion was occupied by an irregularly shaped ulcer with overhanging edges. The base of the tongue upon the left side was occupied by two or three nodules of suspicious appearance. In the sub-maxillary region there were several enlarged lymphatic glands. He stated that he expectorated a considerable quantity of foetid material, and that on several occasions this had been freely mixed with blood.

The clinical appearances and the history of the case pointed to the probability of the growth being of a malignant nature, and careful examination inclined one to the belief that the tonsil had been primarily involved.

It was decided, however, to at once give iodide of potassium and mercury, in the hope that the growth might possibly be of syphilitic origin. An antiseptic mouth-wash was also ordered. For a short time after this he suffered very little pain, but the appearances of the part underwent hardly any change.

A portion of the growth was removed and examined microscopically. It presented the appearances (although somewhat ill-defined) of epithelioma.

The patient was advised to submit to an operation, as at this stage it was considered possible to remove the affected parts. This, however, he declined to agree to.

Iodide of potassium and mercury were continued, and insufflations of morphia were ordered when the pain became very severe. The patient, however, rapidly lost weight, and the pain and the dysphagia became

more severe. Six weeks after this he returned to hospital, and stated that he now desired to undergo an operation. He was accordingly sent to Mr. Wright, of the Manchester Royal Infirmary, for his opinion about the feasibility of operation at this stage. The disease had by this time made rapid strides. The whole of the base and left side of the tongue in its posterior one-third had become involved, as also the palatine arches, a portion of the soft palate, and a small portion of the mucous membrane covering the upper jaw. The patient begged that an operation, however dangerous, should be performed, as his sufferings were now very extreme.

Accordingly, on January 22nd, the patient was put under chloroform, and laryngotomy was performed. A tube was introduced, and the anaesthetic continued through this. An incision was made along the border of the left sterno-mastoid muscle, and the external carotid was ligatured. Another incision was then made, from the angle of the jaw to the symphysis. Some enlarged glands in the sub-maxillary region were now removed. The mouth was held open with a gag, and the pharynx plugged with sponges. The whole of the tongue was next removed, as also the left half of the soft palate, the uvula, the tonsil, the lateral wall of the pharynx, and a small portion of the upper jaw. A drainage tube was now passed into the mouth from beneath the jaw, and the skin wounds stitched up. The laryngotomy tube was retained *in situ*. The sponges were removed from the pharynx.

The after treatment consisted in frequent syringing, and in the use of a mouth-wash containing Condyl's fluid, and in the application of iodoform paint three times daily. Fluid food and stimulants were freely given. For the first three days he was fed by enemata every four hours, along with milk and brandy by the mouth. On the third day he was fed through an oesophageal tube. The laryngotomy tube was removed on February 1st, the drainage tube on February 4th. On February 9th he was sent to the Convalescent Hospital. Three days after his arrival there was slight haemorrhage from the mouth. This continued, and he died on February 18th, twenty-seven days after the performance of the operation. At the *post-mortem* a small orifice in the floor of the mouth was found leading into the carotid artery, which was much inflamed.

Remarks.—Malignant disease of the tonsils is stated in most textbooks to be of rare occurrence. I am inclined to think, however, that the disease is not so rare as it is usually represented to be, and to think also that the nature of the disease is not uncommonly overlooked, being mistaken at times either for some chronic inflammatory condition, or for some syphilitic deposit.

The varieties of carcinoma in this region in their order of frequency are—

- (1) Encephaloid.
- (2) Epithelioma.
- (3) Scirrhus.

Newman, in a collection of ninety-two cases of true carcinomatous diseases of this region, found epithelioma in twenty-four, and scirrhus in seven cases. One or both tonsils may be affected. The disease makes

rapid progress, and the average duration of life is seldom more than eighteen months. Unfortunately, the true nature of the disease is at times only recognized after the surrounding parts—especially the lymphatic glands—have become affected. The prospects of success following any operative interference are now somewhat meagre, and all that can be done in many such cases is to promote the euthanasia as peaceably as possible.

In other instances, however, where infiltration of neighbouring parts has not taken place, the surgeon has to consider the *modus operandi* for each special case. The growths may be attacked either through the mouth or by an external incision after a preliminary tracheotomy in some cases, without in others. Whichever method of procedure the surgeon chooses to adopt, very free removal of tissue is demanded. Where palliative measures alone are indicated, the insufflation of morphia and the use of alkaline or astringent sprays should be adopted.

Mr. LENNOX BROWNE said that in all radical measures the first step should be the ligature of the main artery. In spite of that, however, many of these cases died of secondary haemorrhage. He recalled the circumstance that when in 1879 he showed two cases of cancer of the tonsil and two of the larynx in one evening at the Pathological Society, the then president remarked on what he believed to be the easy confusion between syphilis and cancer. Whereupon he (Mr. Browne) had insisted upon the many marks of difference and distinction which ought if recognized to enable the observer to guard against such a mistake in diagnosis.

Mr. WINGRAVE said he had noticed three distinct varieties of epithelioma occurring in the tonsil. He had never met with a case of scirrhus. The stratified he had found to be most common.

Dr. MILLIGAN in reply admitted that he himself had never seen a case of scirrhus of the tonsil, but Newman recorded seven out of ninety-two. The essential point was to place in relief that there was such an affection as primary cancer of the tonsil.

Dr. DUNDAS GRANT.—*A Case of Submucous Haemorrhage in the Vocal Cord, and Vascular Tumour of the Cord.*

A young lady, aged twenty-four, was brought to me on the 17th of October, 1891, on account of the sudden occurrence of hoarseness and loss of voice. This had taken place several times previously, and was usually brought on by a fit of sneezing, or some vocal effort. The condition generally lasted for about a fortnight, and gradually subsided.

On the occasion of my first seeing her I found the left vocal cord entirely covered by what looked like a thick coating of blood-clot. It was not dislodged by coughing, and was obviously situated under the mucous membrane; it projected over the opposite cord during phonation.

The patient is tall, but not very vigorous, and suffers from backache. She has rather a narrow upper jaw, the lower jaw being somewhat underhung. Her nasal respiration is fairly free, but her mouth is occasionally dry in the morning, and the veins at the base of the tongue are somewhat larger than the average. I investigated the nature of the affection, and failed to elicit any evidence of a haemorrhagic diathesis. I recom-

mended constitutional remedies, chloride of zinc spray, eucalyptus lozenges, and eucalyptus ointment for the nose.

She did not present herself again till the July of this year, when she came suffering again from extreme hoarseness and partial loss of voice, which had come on suddenly a week before. On examination I found the same appearance as before, with the exception that the redness stopped short at the vocal process posteriorly, and the prominence was most marked at the junction of the anterior and middle thirds of the cord. I advised the same treatment as before, and applied chloride of zinc by means of the spray apparatus. A few days later (21st July) her voice was considerably clearer, the outer third of the vocal cord was much paler, the hemorrhagic patch was in general lighter and more transparent. The mucous membrane in the affected region was much looser, and flapped freely during respiration. On the 25th there was only a narrow strip of redness, limited to the edge of the middle third, and part of the anterior third of the cord, surmounted by a well-circumscribed tumour of the size of a hempseed, of irregular surface, bright purple colour, and attached by a broad base to the upper surface and edge of the cord. She has had frequent applications of chloride of zinc by brush and spray, and the cord is quite normal, except at the junction of the anterior and middle thirds, where the vascular tumour described is situated.

It is difficult to decide upon the order in which the events in the larynx have taken place, but I am disposed to think that the tumour preceded the hemorrhages, and that the latter have been the results of the submucous rupture of the vessels of the neoplasm.

The case is interesting, clinically, as showing an unusual cause for recurring attacks of aphonia and hoarseness.

I am sure, Mr. President and gentlemen, you will join with me in my feeling of indebtedness to the young lady for kindly consenting to allow me to bring her and her most interesting case before the Association.

At present the growth has slightly diminished in size, but the question is whether to deal with it radically by means of forceps or galvano-cautery. Although I am rather opposed to the use of cauteries in the larynx, as a general rule, I am inclined to consider this a case in which it is peculiarly indicated, seeing the obviously vascular nature of the growth.

Dr. DUNDAS GRANT.—*Cases of Tumours of the Larynx removed by means of the Safety Endo-Laryngeal Forceps.*

The instrument employed in these cases was shown to the Association on the occasion of the last annual meeting. I have used it with satisfaction in several cases, and beg to offer the following brief notes:—

1. Miss C., who is present to-day, came to me on the 28th of last January, complaining of huskiness and loss of voice, and a tired and aching feeling in the throat, which had lasted for two years. On laryngoscopic examination I found a small, smooth, sessile growth of pink colour, on the edge of the right vocal cord, at the junction of the anterior and middle thirds. There was slight congestion of the part of the opposite cord with which it came in contact, otherwise the larynx was absolutely normal. She was very intolerant of laryngoscopy, but I made several applications

of a ten per cent. solution of cocaine, and then attempted to remove the growth. At the first insertion of the forceps I caught the growth and employed traction, but there was so much resistance that I hesitated to employ sufficient force to tear it away without further inspection. On examination I found that there was oozing of blood from the apex of the growth, which I had obviously grasped most accurately, and stripped of its superficial layer. I ordered a cold compress, and saw the patient two days later. I then seized the growth as before, and forcibly removed it. There was left a very slight but recognizable concavity on the edge of the cord, but the voice became at once distinct. The throat was slightly painful, but in two days under cold compresses this symptom disappeared. Applications of chloride of zinc were made at short intervals, and the voice was practically completely restored. She went home to Lincolnshire, and, at my request, returned to show herself. The voice was then rather feeble, and each vocal effort was preceded by a little nervous "hem," hardly amounting to a cough. By an effort of will she was, at my direction, able to dispense with this preliminary, and when instructed to breathe—as she did most intelligently—by means of the diaphragm, after the manner formulated by our much valued deceased fellow-worker, Emil Behnke, spoke in a loud and vigorous manner. The laryngoscope revealed a slight congestion of the vocal cords, but no trace of the tumour, the site of which could hardly be guessed at, and certainly could not be sworn to. To-day her voice is clear, though not musical, and there is no return of the growth. The microscopic section made by Dr. Holloway shows the size of the growth, which turned out to be a fibro-papilloma.

2. Mr. N. W., a gentleman in the employ of one of the first house agents and furnishers in London, was sent to me by a surgical colleague on the 5th of last September. He complained of extreme hoarseness, which came on with a cold, and had lasted for eight months. He was easily fatigued on talking, and had a slight embarrassment in breathing, which, however, was not present on the occasion on which I saw him. On laryngoscopic examination I found a small, irregular, sessile growth on the middle of the edge of the right vocal cord, about half the size of a hempseed. I cocainized the larynx, and at the second insertion of the forceps removed the growth, leaving the contour of the vocal cord apparently perfectly straight. There was also a tiny projection below the anterior commissure, but this was so small that I considered it quite unjustifiable to attack it, seeing also that it caused no inconvenience. The voice was completely restored, and I sent him back to his former attendant with instructions to have astringents applied to the sub-commissural swelling.

On the 4th of October he wrote to say that his voice sounded quite well, and his doctor said there were no signs of the late growth. The growth was found to be a papilloma.

Removal of Portions for Microscopical Examination.

3. S., aged sixty-six, came to me on October 3rd, 1891, complaining of intense persistent hoarseness of two months' duration. He had

occasionally pain "round the neck" when he put his head back, but none in swallowing, and no difficulty in breathing. His occupation involved much shouting in the open air, and this had occasioned numerous attacks of hoarseness. He had no cough, and no loss of flesh, had no family history of phthisis, but primary syphilis, without secondary manifestations, thirty years before.

On laryngoscopic examination there was seen to be a sessile, papillated growth of a bright pink colour on the middle third of the left vocal cord. There was no impairment of mobility, no pain, and no glandular enlargement.

A portion of the growth was removed, and the section presented the appearance of a papilloma. A temporary improvement followed, but regrowth and extension took place, accompanied by diminished mobility of the cord, and occasional pains shooting up to the ear. The evidence of the malignant nature of the disease was almost complete, and was made more so by the examination of another piece of the growth, which was rich in cornified epithelial cell-nests. Unilateral laryngectomy was performed by Mr. Sutton, but unfortunately the patient sank rather suddenly a few days after the operation.

4. In a case under the observation of Mr. Jakins and myself there was a tumour, projecting papilloma-fashion from the right vocal cord of a woman of thirty-three. There had been previous repeated endeavours at removal of the growth by means of forceps, by another laryngologist of undoubted skill, who had also applied the galvano-cautery a number of times. The growths certainly infiltrated the cord, and the movements were impaired. We succeeded with great ease in extracting a portion of the growth by means of the safety forceps. On section Dr. Holloway found sufficient evidence to justify a diagnosis of epithelioma.

Dr. GRANT related several cases of tumour of the larynx, of which he had effected the ablation without difficulty by means of the instrument which he brought to the notice of the society at a previous meeting.

Dr. GRANT.—*A Case of Post-Diphtheritic Paralysis of the External Pterygoids and other Muscles of Mastication.*

Charles S., aged thirteen, presented himself at the Throat and Ear Hospital complaining of inability to masticate food, or to protrude the lower jaw. In order to break up his food he has to work his jaw by means of his hand. The affection had lasted for about fourteen months, dating from an attack of diphtheria. He had for a short period a regurgitation of fluid through his nose when drinking, and a disturbance of speech, but no impairment of vision.

His mouth is partially open, and the jaw is displaced in such a fashion that the lower teeth are considerably behind their corresponding upper fellows. He cannot close the mouth by muscular effort, protrude the jaw, nor work it from side to side. It may be remarked that there is no tendency to accumulation of food between the gums and cheeks. The movements can be passively performed with the greatest ease, the condyle of the jaw working very loosely in its socket. The soft palate shows no

well-marked dimple to indicate action of the tensor palati, but elevation takes place, and the uvula contracts on irritation.

The patient believes his taste and hearing to be perfectly normal.

My colleague, Dr. de Watteville, has kindly taken the case under his care for suitable electrical treatment, and he has permitted me to show it to-day as one of the rare sequelæ of the dire disease we have so often to treat.

Mr. LENNOX BROWNE.—*Case of Palatal Paralysis, following (probable) Diphtheritic Rhinitis.* (From notes by Dr. Holloway, Registrar.)

R. W., female, aged forty-five, applied at the Central Throat, Nose, and Ear Hospital, as an out-patient, December 5th, 1892. Married twenty-three years. Nine children, of whom five are now alive, and four died from pertussis or bronchitis. Father died of old age. Mother alive and well. No brothers or sisters.

The patient, who is a thin, spare, somewhat anaemic person, has been unusually free from disease and ailment of any kind since her twentieth year, when she had variola; otherwise she has always enjoyed good health. Her present illness dates from the first week in November, when she caught a severe cold, which was confined almost entirely to the head. She was not quite rid of this when she caught another cold, this time affecting her chest as well, and she had a troublesome cough, but at no time has she had the slightest sore throat. She gives an account that one day during the second attack she blew down from the right nostril a membranous tube of a greyish, yellow colour, which was followed by slight haemorrhage from the same nostril. Very shortly after recovery from this second cold, viz., three weeks ago, she first found some difficulty in articulation, stating "that it felt as if the back of her throat had got so swollen that she could not get her words out." A day or two later she found that in attempting to swallow fluids, they returned through the nostrils, and this symptom is still present. Added to these difficulties in articulation and swallowing, she has also experienced some defect in vision—as evidenced by difficulty in threading her needle and in reading—since the last fortnight. Beyond some shortness of breath on exertion, and slight occasional cough, her general health has not suffered, nor has menstruation been interrupted. She can give no history of exposure to foul smells, and is unaware of any fault in the sanitary condition of her dwelling-place.

On examination, the right tensor palati is found to be much more sluggish in its action than the left, though both are impaired, while the levator palati is generally paretic; there is no diminution of reflex sensibility. Nothing abnormal is to be seen in the larynx or in the nostrils. Her voice has the characteristic nasal tone of one suffering from post-diphtheritic paralysis, and this is the diagnosis which has been made.

Remarks by Mr. LENNOX BROWNE.—The clinical history is lacking in several details that would add to its interest, but there can be but little doubt that it points to a localized diphtheria of the nares, with little or no constitutional disturbance during the attack, but with sequelæ indicating a constitutional infection. Notice should be taken of it, as one more

illustration of the warning I have often enforced, but which is not even yet sufficiently realized, that the local symptoms of diphtheria in adults are often so slight as to escape recognition, and are only realized at a subsequent period when contagion may already have been conveyed to others. [The patient was exhibited.]

Dr. DUNDAS GRANT.—*Case of Antral Disease illustrating Transillumination.*

Mrs. O., aged fifty-five, has been under my care with the now familiar typical symptoms of empyema of the right antrum. The diagnosis was confirmed by means of puncture and irrigation, according to Lichtwitz's method. She was relieved to such an extraordinary extent by this exploratory irrigation that I abstained from any further operation for the time. Re-accumulation naturally took place, and I had the antrum opened through the alveolus of an extracted carious stump. Recovery has been delayed by the occurrence of suppurative otitis on the same side, and erysipelas of the auricle on the other, so that she is still a suitable subject for the demonstration of the transillumination process. You will observe a distinct almond-shaped spot of light below the left eye, which is quite absent under the right one.

In a similar case in the person of a gentleman under my care I found the same appearance, and the patient himself was conscious of more light reaching his eye on the sound than on the affected side.

It must be remembered that the translucency does not reappear at once on the evacuation of the pus, the thickening of the mucous membrane, and possibly the plastering of the walls with the denser constituents of the fluid, keeping up the relative opacity.

I would ask you to compare with these appearances the average appearance as seen in the patient I have brought to illustrate disease of the frontal sinus. In him the orbital lunæ are distinct, and the creamy, antrum-like pus in his left nostril comes from a different source.

Instead of darkening the room I have borrowed a hint from the photographer, and use a dark cloth over my head and that of the patient, just as the photographer does over the camera. This enables one to avoid the great inconvenience of darkening the room to the complete extent necessary for satisfactory transillumination.

I have used the method in several cases with equally clear results, and I should consider translucency a quite sufficient evidence of the absence of pus. As a positive evidence I should attribute to it only a relative value, and should rely upon the confirmatory results of Lichtwitz's puncture. It is a process, however, which is absolutely unobjectionable to the patient, is—if you wish it so—most impressive, and, as I have said, of some value as a positive, and very much more as a negative, test.

Dr. Dundas Grant demonstrated on this patient the method of "transillumination" as applied to the diagnosis of purulent effusions into the antrum. By the introduction of a small electric lamp *ad hoc* into the mouth, the light being screened off by throwing a cloth over the heads of the observer and the patient, the region above the antrum on the non-

affected side appeared translucent. On the affected side, on the contrary, the translucency was absent.

PRESIDENT'S INAUGURAL ADDRESS.

Dr. ARTHUR SANDFORD (Cork).

My first duty as President of the Laryngological Association is a pleasing one, being to express to you my sincere thanks for the great honour you have conferred upon me in placing me in this distinguished position. When I consider the world-wide reputation of some of my illustrious predecessors, I am keenly sensible of my own unworthiness to fill the post to which your kindness has elected me, but at the same time I am filled with the determination to do all that in me lies to emulate the best traditions of the chair, and to advance the interests of this Association by every means in my power.

In order to give an early proof of my sincerity in this respect, and doubtless to your great relief, I shall make my introductory remarks as brief as possible, believing, as I do, that the spirit and aim of a society such as ours is shown in honest, earnest work, and not in the exhibition of elaborate compositions.

Last year, when my immediate predecessor occupied a similar position, a tone of sadness was imparted to his address by his touching allusion to the recent loss of one whom—whatever other attributes friend or foe may endow him with—all the world acknowledges to have been a distinguished laryngologist; and, in this capacity at least, we, the members of the Laryngological Association, cherish his memory, whilst we reap the fruit of his genius, and profit by his life-work.

To-day, I am glad to say, no cloud shadows the brightness of our year's retrospect or dims the brilliant prospect opening for our Association—a prospect which justifies the most sanguine anticipations of a successful future.

The record of the past twelve months' work is one of which any scientific society might well feel proud. Animated discussions upon subjects of general interest, demonstrations of the results of elaborate and accurate original research in several tracts of knowledge hitherto unexplored, with valuable contributions of interesting cases from various parts of the United Kingdom—all mark emphatically the vitality of our Association and the enthusiasm of its members, whilst giving incontrovertible proof of the advantages which scientific treatment must derive from a society such as ours.

In the healthy atmosphere of open discussion the faddist bears his fads discussed with a candour which, if not always agreeable to his feelings, cannot fail to exercise a salutary influence upon his practice: and sometimes, possibly, may rend the veil of paternal affection through which he regards some cherished idol amongst his intellectual progeny.

Here the severe specialist and the generalist with specialistic tendencies meet upon equal grounds, and as each puts forth his strength to prove the superiority of his views, wise men gather what is best of each, and combine their application to the discomfiture of disease.

Valuable as our Association is upon general grounds, as concentrating into one channel the scattered forces of isolated effort and of individual experience, the personal advantage reaped by its members is inestimable. Especially is this the case with those whose lot it is to work at some of the outposts of scientific research. For myself, I am sensible of the deepest gratitude for the benefit I have derived from my attendance at our meetings—often accomplished in the face of difficulties of which the geographical distance was the least—and I cannot speak too warmly of the pleasure I have felt at the invariable kindness I have at all times experienced from the members of the Association.

There is one subject upon which I am anxious to speak briefly to-day. It was broached at Nottingham by the President of the Laryngological Section of the British Medical Association meeting, held in that city. Our best thanks are due to him for having called attention to this subject, and also to the several subsequent speakers who alluded to it. I refer to what was designated as "OVER-SPECIALISM."

As was then pointed out, there are, without doubt, at the present time evidences of the existence—even amongst specialists—of a feeling that certain subjects are "over-specialized," and this feeling is quite distinct from that which prompts the feeble sneers of unenlightened ignorance, with which we have from time to time had opportunities of becoming extremely familiar. The subject is not one to be hastily dismissed, for, without doubt, momentous issues are involved therein.

There are two forms in which this phantom may appear—either (1) over-specialism in the selection of a limited field for scientific research; or (2) over-specialism in the exclusive application of local treatment.

With regard to the first, for my own part, I believe that so far as the interests of science are concerned, and regarding only the great sum of scientific knowledge—apart altogether from the individual whose work contributes towards increasing it—it is quite impossible for any subject to be "over-specialized." The more men's minds are concentrated upon any particular point, the more will every available source of information be tapped, until the truth is at last dug out.

I believe, for instance, that if every individual bacillus known to exist in the wide preserves of the bacteriologist had an individual hunter upon its trail who made its life-history his special quest, and scientific truth the Holy Grail which inspired his efforts, this subject would hardly be over-specialized—so far, at least, as the acquirement of accurate scientific information is concerned. Nor is the illustration so extravagant as it may appear; for it is within my recollection that during the last session one of our most distinguished Fellows, in an able paper on the "Etiology of Affections of the Upper Respiratory Tract," confessed that one of the great difficulties he experienced was the enormous mass of unclassified material met with in his microscopic slides, and complained that life is too short for any one man to hope to separate, follow up, and apportion to its proper place the number of organisms thus grouped together in confusion. Here a number of specialists exclusively devoted, each to his own line, would have a better chance of ultimately forming a systematic basis of enquiry. Whether such a limited pursuit would "pay," in the

vulgar sense of the word, is quite another matter. Probably the "pleasure of pursuing" would represent the larger portion of the pursuer's material gain. But, in a few years, what a wealth of distinct facts would be crystallized out of chaos, and what a very different appearance the realms of bacteriology would present to the humble individual approaching their confines for the first time !

Incipient prejudice with regard to over-specialism is, I believe, partly a sort of reaction due to the rapidity with which now-a-days every scrap of information becomes at once common property, and so generally familiar that one is apt to forget that to the concentrated energy and active enterprise of the specialist is due the credit of having first brought it to light. The feeling is also partly the result of observing the unavoidable discomfiture which must at times attend the tentative efforts of pioneers in an unknown country, whose glory is to push their researches beyond the limits of beaten tracks. Every atom of solid information thus gained is at once grasped by a host of keen observers : but when the explorer, carried away, it may be, by that enthusiasm and self-reliance without which he would not have dared to leave the well-known lines, meets with failure or disaster, his personal reputation may suffer—but science is the gainer.

Those who sit in safe seats, timidly longing perhaps for some means of overcoming a long-standing difficulty, might at least feel grateful to others who, by making the fatal plunge, show how far it is safe to go—even by the failure of their efforts.

With regard to the second form which so-called "over-specialism" may assume, viz.—in the treatment of all local affections by exclusively local remedies, without due regard to co-existent local or general conditions, which perhaps have originated, still influence and possibly exaggerate the malady for which the patient seeks relief. This is a species of "exclusive dealing," which like all other examples of that obnoxious principle, is sure sooner or later to recoil upon the head of him who practises it. Those who in this regard speak of what they call "over-specialism" really mean that occasionally false prophets arise, who, utilizing the discoveries of science with a single eye to their own advantage, treat their patients with invariable and unnecessary activity : or who, in priding themselves upon being nothing else than specialists, wilfully ignore the proved advantage of moderate accessory or collateral treatment, and sacrifice their patients to the exclusive application of novel or heroic remedies. This, however, is not *over-specialism*, but the *abuse* of specialism ; and those who practise it may very well be left to the reputation which must inevitably attend upon such (to say the least of it) unskilful treatment.

One great duty of our Association is the discouragement of such principles, and it is right and proper that this influential body of specialists should speak out with no uncertain tone upon this subject. At the same time we should not allow any timidity regarding accusations of over-specialism to damp our determination and enthusiasm in working out the truth, and then in loyally applying our discoveries to the treatment of disease. The great aim of our Association is, whilst discountenancing all

attempts at quackery or the abuse of specialism, to foster every honest attempt to add one stone to the edifice of accurate knowledge.

Among kindred societies of specialists we have the sin of comparative youth to be laid to our charge, and we cheerfully embrace the fact—knowing, as we do, that with it we possess youth's best characteristics of keen enterprise, insuppressible vitality, and vigorous energy.

While other societies are compelled to go over again and again the same well-worn fields in the praiseworthy effort to extract any grains of truth overlooked by their predecessors, we have, in addition to this, fresh virgin soil, as yet almost untouched, where every day some new object of interest is discovered by the earnest seeker.

In malformations of the respiratory passages ; in the influence exercised by these upon other morbid conditions, near or remote, reflex or direct : in the diagnosis and treatment of affections of the bony sinuses communicating directly or indirectly with these passages ; we have before us unknown possibilities, which fascinate the imagination, and stimulate our exertions in pursuit of knowledge. I am convinced that in the recesses of these dark cells lie hidden the secret of many a so-called "neuralgic headache," "face-ache," or other more obscure troubles. The evident sympathy existing between these parts, and the functional activity of remote organs, with which no direct communication can be traced, as well as the manifest influence exerted by conditions arising in them upon the higher nervous functions—an influence extending beyond mere interference with the special senses, and reaching the mental faculties themselves—all point to potentialities in discovery, of which it is impossible to define the limit.

A very few years ago the nose occupied a position in surgery but little in accordance with the prominence given by Nature to that feature or organ. It was, I believe, until recently regarded only as a feature and not as an organ. It was only studied with a view to ascertain certain traits of character, presumably indicated by its outward shape and size.

Recently science has waked up to the fact that this apparently innocent appendage contains structures of vital importance to the health and happiness of the human race. For some time specialists in all parts of the world have been earnestly engaged in forcing the secrets of its most sacred recesses, and, in spite of ridicule and opposition on all sides, and notwithstanding the breaking down from time to time of some plausible theories, have steadily been making good their ground, and can now distinctly trace many obscure symptoms occurring in remote portions of the economy to morbid processes located in the nose, naso-pharynx and adjacent parts. As a result of this, many distressing symptoms, hitherto incurable, have been relieved by treatment directed to the primary seat of trouble.

Such is one example of the work of specialists, and there is no better instance of the difficulties which they have had to contend with than the way in which prejudice has persistently attempted to place obstacles in the path of advance in nasal surgery.

It is possible that in this advance there may be at times a tendency for enthusiasts to "overdo the thing," and to outstep the bounds of

reason and of common sense. Well, the results teach us at least the salutary lesson—*not* to do likewise.

Leaving this subject, I would ask you to bear with me for a few moments whilst glancing backward over the record of the past year's work. We have every reason to congratulate ourselves upon the success which attended our efforts, both as regards the work produced at our meetings and the increase of our numbers by the admission of many new members, whom we are glad to welcome. It is interesting, as well as profitable for future guidance, to consider for a moment the causes which conduce to this success.

In the first place, of course, our thanks are due to our late president for the interest he evinced in the practical working of the Association, as well as for the readiness with which upon all occasions he brought the light of his large experience to bear upon the various subjects under discussion.

In the next place, I believe our success is largely due to the energy and devotion of our late hon. secretary, Mr. Stoker, upon whose shoulders fell the lion's share of the routine work of the Association, in addition to the systematic arrangement and organization of our meetings, which he so successfully carried out.

And lastly, we have been singularly fortunate in the character and excellence of the communications brought to our meetings from various quarters, and the best thanks of the Association are due to those members, who in loyalty to the interests of science in general, and to those of our society in particular, brought the best and ripest of the fruits of their experience and individual work to enhance the value of our proceedings.

In this regard I am quite sure that I but feebly express the sentiments of every member of the Association in saying that we feel extremely and especially grateful to Dr. Macintyre, of Glasgow, for his able and interesting series of papers and demonstrations in connection with the subject of the "Bacillary Origin of Inflammatory Affections of the Upper Respiratory Tract." We feel very proud of having such work issuing from one of our fellows, and earnestly trust that during the present year we shall have still further proof of his genius, and of his extraordinary capacity for work at once minute and comprehensive.

Of other valuable contributions it is hardly right that I should occupy your time by selecting any for special comment. We have had an extremely interesting and instructive discussion upon the "Origin of Deviations of the Nasal Septum." And really, from the statistics brought forward by Mr. Mayo Collier in his able and exhaustive paper upon the subject, it would almost seem that so very large a proportion of the adult population are affected in this way, one might begin by an enquiry into the causes of a perfectly straight median septum as being the abnormal condition !

We have also had interesting discussions upon the "Influence of Nasal Stenosis upon Ear Troubles," the "Influence of Physical Voice-training upon Affections of the Vocal Organs in Public Speakers," with other communications too numerous to mention, and a valuable series of Microscopic sections.

Such an extremely satisfactory record in the past gives us reason to look cheerfully forward to our prospects for the session upon which we have just embarked, and the full programme before us this afternoon augurs well for the future so far as our meetings are concerned. And if the fellows during the coming year will do their duty by the Association as thoroughly and as loyally as in the past, I am sure I may promise for myself and Mr. Wingrave, that, as president and secretary, we shall do everything in our power to emulate our predecessors in devotion to the interests of the Association. Thus we shall endeavour to secure those three elements which so largely contributed to our success last year.

Whilst speaking of our prospects for the future is perhaps the most fitting time for me to inform you, as I do with sincere pleasure, that your council have to-day issued a cordial invitation to those first members who, for a variety of reasons, detached themselves from us some years since to rejoin this Association. Time the healer, and various changes following in his train, have done much to remove the causes of this cleavage in our ranks, and we venture to hope that our distinguished colleagues will again unite with us in making our Association all that it should be, and worthy of the great object for which it was originally founded.

There is but one point more to which I shall allude, and this is a contemplated "new departure" in the routine of our proceedings during the coming year. Having discussed the project with several of our colleagues, and it having met with their approval, it now gives me great pleasure cordially to invite the Association to hold their next summer meeting in Cork. I trust that many of our members will be able to attend, and I can assure them of at least a warm welcome.

I must not now further occupy your time, and intervene between the meeting and its proper work, but conclude by thanking you for the additional proof of your kindness which you have given in the patient hearing you have accorded me.

Dr. MILLIGAN said that with regard to the proposal to ask back those members of the society who had seceded, he thought it should be ratified by the whole of the fellows present. He regretted the secession, but he felt sure that their work would be more valuable if carried on in association with their fellows in this department. He felt certain that they would be received with every respect, and that all their work in the future would be carried out in a truly fraternal spirit. He concluded by moving as a substantive motion "That this meeting cordially invites those fellows "who had resigned their position in this Association to rejoin, and that "every endeavour be made to make the meeting friendly."

Mr. BARK (Liverpool) said that he was not old enough a fellow to remember the cause of the dissension, but personally he was very desirous of welcoming the fellows back to the Association.

The PRESIDENT, in replying, moved that the following action of the Council be heartily endorsed : "At a special meeting of the Council of "the British Laryngological and Rhinological Association, held on Dec. "8th, 1892, it was moved by Dr. Sandford (President), seconded by Mr. "George Stoker, and unanimously resolved that those members who

"withdrew from the Association some years since be cordially invited to "rejoin, in the interests of that branch of science which it is the special "object of the Association to advance."

This was seconded by Mr. Bark and Dr. Milligan, and carried unanimously.

Mr. LENNOX BROWNE, referring to the President's remarks on "overspecialism," said they should make sure that they were not fighting a bugbear. He did not know whether it existed in their own specialty: if so, he would like to know the names and addresses of the delinquents. It was true that one or two laryngologists had spoken very strongly against the galvano-cautery, but when any of their patients happened to come under him (Mr. Browne), he, in his turn, generally found that they had been cauterized pretty freely. There still existed some laryngologists who had learned what was then known of the science twenty years ago, and who thought that applications of solutions—chloride of zinc—comprised all local treatment, and to these gentlemen any further measure appeared as an "excess," but what they took for excesses were really representative of the advance of laryngological science. It behoved all specialists to welcome new suggestions, whencesoever they came, if only they gave promise of increasing their powers of alleviating suffering. There was one thing in particular that surgeons ought to beware of, and that was the so-called "crystallization" of experience, for it was but too often the first step in the "evolution of degeneration" to obstructive "fossilization."

The motion was then carried by acclamation.

The PRESIDENT announced that it had been decided, in virtue of the bye-law permitting the President for the time being to choose one meeting in a provincial town, that the meeting next summer should take place at Cork.

Mr. GEORGE STOKER said that if the meeting took place in Cork, he hoped the fellows and their friends would come to Killarney, and that it would give Mrs. Stoker and himself much pleasure if they would lunch with them at Dunloe.

A vote of thanks to the President for his address was then agreed to by acclamation.

Mr. MAYO COLLIER.—*The Surgery of the Frontal Sinuses.*

Mr. President and gentlemen,—Sir, it may be within the recollection of some now present that I was invited by the President and Council of the Association to lay before you at our last meeting any notes of cases or experience I might have had in the surgery of the frontal sinuses.

I accepted that invitation, but when I reflected how limited my personal experience had been—as, indeed, from the necessities of the case, it must be to most surgeons—I looked about me for materials with which I might make any communication I had to present to you at least worthy of this critical and expectant society.

A few words on the development, anatomy and physiology of the frontal sinuses will not be an unfit preface to any remarks I am prepared

to make on the surgery of these spaces, more especially as the text-books are phenomenally dumb on the subject, and little more than the bare existence of these spaces is known to most readers. The frontal sinuses, for there are generally two, are irregular cavities situated between the inner and outer tables of the frontal bone, near the root of the nose. In the recent state these cavities are lined by a thin, pale, closely adherent mucous membrane, and separated from each other by a well-marked septum. They communicate separately with the corresponding nasal cavity by an opening variable in size, leading into the anterior extremity of the middle meatus of the nose. Before proceeding further in detail with the anatomy of these spaces, a few words on the theory of the development of the frontal sinuses will not be out of place here. In the records of the transactions of the Provincial Medical and Surgical Association for 1833, vol. i., you will find a very able and highly suggestive article by Dr. Milligan, of Edinburgh, on this subject, also in his notes on Majendie's "Physiology," some pertinent remarks in the same direction.

To be as brief as possible, Milligan wishes to show that the functions of the two tables of the skull are quite different—that the inner table being moulded closely to the fissures and convolutions of the brain is mainly supporting and protective to that organ alone: next, that the brain arriving at its full state of maturity at seven years of age, the inner table ceases to grow or to expand after that date.

Not so the outer table, which is an irregular envelope, at some places as thin as a wafer, at others thicker than all the rest of the cranium. If viewed from without, we find that every particle of its surface is adapted to some purpose it has to answer in combination with the soft parts it is in contact with. Many prominences are levers for the muscles, others are scabrous surfaces for their insertions, others are condyles for joints, others organs of hearing, others organs of fixation, others of protection: and all this in direct reference to the organs of contact, but without the least relation that can be discovered to the encephalon. *Hence we are forced to conclude that its projections solely originate under the influence and for completion of functions that are all external to the cranium.* The evolution of the frontal sinuses does not take place till the seventh year, nor is it complete till the twenty-first year.

At the seventh year the bones of the face are yet small and childish, and the jaws are occupied by the first set of teeth. At this time the Wenzels inform us, from many observations, that the brain has arrived at its full magnitude. Up to this time the internal carotid artery was many times larger than the external, but immediately after full development of the brain has taken place a sensible diminution in its calibre occurs, and a rapid and large increase is apparent in the external carotid and its branches. The bones of the face, the teeth, eyebrows, and outer table of the skull now grow rapidly, and the internal table being at a standstill, large spaces occur between the tables of the skull, hence the frontal sinuses.

This then, shortly, gentlemen, is a not unreasonable explanation of the existence of these spaces. Reverting to the anatomy or topography of the frontal sinuses. I would now direct your attention to these three

diagrams taken directly from actual specimens, showing horizontal sections of the spaces, the age and sex of each being given. From these you will learn, as indeed you might expect from the process of development, that no two spaces are alike, and that the external appearance gives little or no indication of the size and extent of these spaces.

I will now pass round two dried specimens of adults from my teaching collection, showing extreme cases of these sinuses. In the one case you will observe an abnormally large irregular sinus on each side, in the other a total absence of any sinus spaces. The use of these spaces is probably as resonance chambers to the voice.

Now, sir, in reference to the surgery of the frontal sinuses, the records of the special hospitals for diseases of the nose and throat are almost blanks, but on the other hand, if you examine the reports from the various ophthalmic hospitals you will there find many cases of affections of these spaces.

This is accounted for by the fact that accumulations of fluid, be it pus, serum, or mucus, or what not, in ninety-nine cases out of a hundred bulge or perforate the roof of the orbit and protrude at its upper and inner angle under the upper eyelid, usually causing diplopia as a prominent and often, to the patient, only symptom. The records of these cases are not a few, and the names of oculists are invariably associated with them. Hulke, Lawson, Sælburg Wells, Bell-Taylor, and many others have each reported one or more cases.

By far and away the most common affection of these spaces is distension by the retention and accumulation of the products of inflammation.

The pressure of the retained fluids bulges the bony casement at its weakest point, namely, the roof of the orbit.

Cases are not unknown where the pus has pressed backwards, and so entering the arachnoid cavity, has set up a fatal meningitis or abscess of the brain, or again, may rarely bulge and perforate the bone in a forward direction. Cases again occur where the accumulation is intermittent, the pressure due to retention forcing the normal passage into the nose. These cases are not marked by protrusion of the roof of the orbit, and, being free from any gross external signs to assist the diagnosis, are as a rule unrecognized. To this latter class of cases the term empyema of the frontal sinus is, I think, properly applied. The diagnosis and treatment of these two classes of cases is radically different.

In the former we have to make a diagnosis, and differentiate from distended lachrymal sac, dermoid cysts, exostoses, and new growths, whereas in empyema of the sinus our diagnosis to a large extent depends upon subjective evidence alone. In the one class of cases the first and only symptom may be a displacement of the eyeball associated with diplopia, but unaccompanied by pain or uneasiness at the root of the nose. Empyema of the frontal sinus is not necessarily associated with any other affection in the throat or nose (quoting from Prof. Ogston : "The onset is usually undefined, and patients have merely perceived that from a certain date without well-marked cause they began to suffer from uneasiness and pain in the situation of the frontal sinuses.")

Headache at the root of the nose, varying in intensity but always present, is a main feature of these cases.

A discharge of pus, not abundant but variable in quantity, if looked for, may generally be made out.

Pus may also be sometimes found at the anterior part of the roof of the cavity, but is small in amount and rarely visible; pain or tenderness on pressure may or may not be present, but percussion with the fingers or a pleximeter generally elicits some uneasiness.

The character of the pain varies; it is not so much the intensity that is annoying as the constant presence of fulness associated with dull pain. Bending forward, stooping, or reading increases the trouble, and as a rule it is increased when in the recumbent position and after sleep. Dull, damp, and rainy weather increases the discomfort, but high altitudes, bright and dry atmospheres, improve matters considerably.

Many of these cases escape diagnosis, and are treated by the physician with bromides and iodides of potassium, shower baths, and the usual list of remedies for headaches without materially benefiting the case.

The surgeon having come to the conclusion on the evidence before him that disease exists in the frontal sinus can only hope to relieve his patient by procuring a proper vent, or by applications to the diseased mucous membrane, or both.

I have here the notes of several cases diagnosed, operated on, and cured, and in two of these cases diagnosed and operated on by Prof. Ogston, he states the mucous membrane was so granular it might be termed polypoid, being lined with soft gelatinous outgrowths, exactly like the common nasal mucous polypi of the size of a split pea or a little less.

To reach and effectually treat the frontal sinus by way of the infundibulum is out of the question; resort must then be had to opening the sinus in front, at the root of the nose, in the midline or at the inner and upper angle of the orbit—a strong and fatal objection to this latter procedure being that the empyema may be one-sided, and it is not as yet possible to make sure on which side the disease exists.

A detailed account of the procedure requisite to open the sinuses in front will now be laid before you.

The patient being anaesthetized, preferably by chloroform, and the interval between the eyebrows being divested of any hairs, and made scrupulously clean, a note is to be made of the exact spot in the midline, on the level of the upper margin of the orbit. This, for the purpose of the operation, may be termed the "pin spot," as it is the spot where the pin of the trephine is subsequently placed. An incision should be made exactly on the midline, commencing at the root of the nose, below the glabellum, and carried upward for about two inches. In this incision everything is divided to the bone. There is no haemorrhage as a rule. Next, the pericranial covering is raised by an elevator, and retracted to each side with blunt hooks.

Bone to the extent of a five-shilling piece will now have been exposed. A trephine, with a crown the size of a sixpence, or less, should now be so placed on the glabellum that the pin of the trephine enters the bone at the pin spot. The trephine is worked in the usual way, with caution,

examining with a fine probe the depth of the incision after every few twists. As it is important to remove the button of bone without lacerating or opening the lining of the sinuses great care must be observed during the last few twists of the trephine.

The trephine does its work first below, and there is always some difficulty in removing the button, the bony septum or arch dividing the sinuses retaining it above. By careful manipulation with an elevator the button of bone is detached, leaving the mucous lining of the sinuses intact.

One or both sinuses, according to circumstances, is next to be opened with forceps and scissors, and examined. Any secretion is to be removed, any disease of mucous membrane is to be treated by curetting and chloride of zinc—grs. 40 $\frac{5}{6}$ —to the whole lining membrane or any polypus removed, and its base destroyed by caustic or cautery. Above all things an opening must be established with the nose, and a drainage tube inserted and maintained in position.

Daily ablutions with antiseptic fluids will keep up a healthy action and assist a cure. The wound is to be accurately adjusted, the pericranium and pericranial aponeurosis, as well as the skin, being separately and accurately adjusted. The tube may protrude from the centre of the wound for the first few days, for the purpose of irrigation, but subsequently may be shortened or dispensed with entirely.

Well, the result of this operation is usually beneficial immediately. The patients lose their troublesome symptoms and are permanently relieved. The wound healing by first intention there is no scar or disfigurement, and the line of the incision is scarcely perceptible.

The method of treating the other and more common class of cases as illustrated by a protrusion and displacement of the eyeball is equally simple and satisfactory. Lawson, Hulke and others have laid down the rules and steps of the operation with great exactitude. An incision parallel with the eyebrow at the most prominent part of the swelling, followed by the introduction of the finger into the sinus and the evacuation of its contents, constitutes the first step of the operation. The next step is to find or make a communication with the nose and insert a drainage tube. This is best done by a stout probe or director thrust in the direction of the infundibulum till it appears in the nose. A firm but small drainage tube is next inserted and maintained in position for the purpose of irrigation and drainage. The mucous lining may be treated according to the necessities of the case and the tastes of the surgeon. The result is generally completely satisfactory, the eye regains its function and position, and little or no scar remains.

More rare affections of the frontal sinus, next to accumulations, are exostoses, polypi, and new growths, and the accidental introduction of foreign bodies, such as snuff, insects, larvæ, etc.

Exostoses are very rare, and are usually of the hard description. There is one specimen in the Hunterian Museum, a large one filling both sinuses, and protruding into the nose and orbit. The museum at Cambridge contains another specimen, and a third is to be found at Bartholomew's. Mackenzie had two small specimens—found, I believe, unexpectedly *post-mortem*.

Polypus of the frontal sinus is rare, but when occurring, is usually associated with the same disease in the nose. Unassociated with disease in the nose it is extremely rare. Mr. Hulke, in the *Lancet* of March 14th, 1891, reported several cases of polypi of the frontal sinuses, only one of which was unassociated with a similar state of things in the nose. These cases generally led to accumulations in the sinuses, and were not primarily diagnosed as polypi.

New growths are extremely rare, but sarcoma has been reported as presumably originating in these spaces.

Of insects in the frontal sinus, cases have been reported by Mackenzie and others. My own personal experience of diseases in the frontal sinus is limited, but three cases I will lay before you I think of more or less interest. One was that of a gentleman on the Stock Exchange, who after a pinch of snuff from the friendly snuff-box according to the old custom that prevailed at dinner parties, was seized in a few hours with intense frontal pain referred to the root of the nose, high fever, and some confusion of mind. The eyes were injected, and tenderness was apparent over the site of the sinuses.

I diagnosed acute inflammation of one or both sinuses, and with the help of aconite and morphia internally, and an ice-bag *in situ*, my patient speedily recovered.

The next case was that of a distinguished Alienist physician, lately living in Wimpole Street. He complained of dull, constant pain and fulness in the frontal region of several weeks' standing, accentuated and increased by bending forwards to read or for other purposes. A severe catarrh had preceded this state.

I diagnosed a collection of fluid in the frontal sinuses, and ordered a warm douche to nose with iodine, chloroform and carbolic inhalations. This was followed in a few days by a copious discharge of semi-purulent matter and recovery.

The third case was one of more interest. In the autumn of last year I was asked by the late Sir Morell Mackenzie to meet him and Dr. Major, of Montreal, in consultation over a case pointing to trouble in the frontal sinuses. I may preface my remarks by saying that the gentleman in question, who was a wealthy man, had been under the care of one or more of the specialists in most of the cities of America and the Continent. Each had had a shot at him, and lastly Fauvel, of Paris, sent him on to Sir Morell Mackenzie.

His symptoms were briefly these. For the last six years he had suffered from a more or less intense headache at the root of the nose, augmented by damp or rainy weather, but lessened by fine weather and elevated positions. On attempting to read with the head forwards, or paint, which was his favourite occupation, the annoyance of the pain was such as to force him to discontinue. In his own words, the discomfort was considerable.

The consciousness of continual pain, more annoying from its constant presence than from its intensity, was sufficient to render his life miserable and unfit him for ordinary duties. The nose and throat were apparently normal.

Well, sir, I met Sir Morell and Dr. Major in consultation, and with very little hesitation I came to the conclusion that the patient was suffering from either polypus, exostosis, or some inflammatory state of the lining membrane of the frontal sinuses, with probably intermittent accumulations, and I made bold to advise exploration of the sinuses from the front. Well, they agreed, and I did so. A vertical incision down to the bone in the manner previously indicated was my first step. This gave me ample room. On lifting the periosteum and retracting, bone to the extent of a five-shilling piece was exposed and appeared healthy. A trephine with the diameter of a sixpence was worked over the glabellum and a button of bone removed. The osteal surface of the lining membrane was now exposed, and was of an intense blue slate colour, and the line of the septum dividing the two spaces could be well made out. At this point a most remarkable pulsation with each respiratory act was noticeable, the membrane bulging forwards with expiration and collapsing with inspiration, exactly as occurs when the internal jugular or other great veins are exposed. Sir Morell and others present feared I had got on to the longitudinal sinus, but forceps and scissors soon demonstrated that I was within the frontal sinuses, that each sinus was patent, and that no disease was present. Well, sir, you will be glad to hear no harm was done : the line of the incision is now scarcely noticeable, and the gentleman left the home fourteen days after greatly improved, and I believe this improvement is still maintained. It is seldom that a surgeon will be called upon to open these sinuses without some well-marked swelling, or other coarse indication of disease. If called upon I would venture to recommend the incision adopted by myself as the best.

The skin is divided in the midline, there is little or no haemorrhage, and the occipito-frontalis is not divided ; lastly, the wound when healed is scarcely perceptible, a matter of no little importance to the more particular of our patients.

Mr. LENNOX BROWNE.—*A Case of Suppuration of the Frontal Sinus.*

M. Y., aged sixty-three, a laundress, was admitted into the Central Throat, Nose, and Ear Hospital on March 21st, 1892. The patient stated that her family history was good, and that she had suffered from no serious illness except occasional hysteria and nervous debility. Five or six years previously she had noticed "a swelling just over the nose, between the eyes," which subsided with occurrence of a profuse discharge from the nostrils. With the increase of the external swelling there was also noticed an increase in nasal obstruction, while both symptoms—namely, that of protuberance, and of the stuffiness of the nose—were always relieved by a nasal discharge. This alternate enlargement and outpour continued to occur every six months or so till October, 1891, when the swelling burst, just over the inner and upper wall of the left orbit. Previous to this she had suffered great pain in the frontal region, with enormous swelling (*œdema*) of the eyelid. When these symptoms were at their worst she had, under a local doctor's advice, used poultices freely for several weeks. The acute stage subsided with the opening of

the abscess, but the discharge showing no evidence of cessation, she sought advice at the Cheltenham Eye, Ear, and Throat Infirmary, from which institution she was sent here by Mr. Frederick Smith.

State on admission.—General health, feeble; anaemic and painfully nervous; also somewhat morose and depressed in spirits. No paralysis. Locally, on anterior rhinoscopic examination, both nostrils are observed to be blocked, and the left one is so filled with dried discharge that the landmarks are quite unrecognizable; the right is seen to be obstructed by polypoid masses, but the turbinal bodies on each side are shrunken. Externally there is seen a small hole just above the left inner canthus, from which fetid pus is discharged, and through which a probe passes an inch, in a posterior median direction, when it distinctly strikes dead bone; a probe passed up the left nostril in the direction of the infundibulum gives a similar indication of necrosis, while exploration of the orbital sinus likewise indicates bare bone, the probe passing three-quarters of an inch. With the ophthalmoscope the fundus of the left eye is of a normal appearance, and there are no cerebral symptoms to indicate deep lesion beyond more than usual apathy with irritability on being roused.

Operation performed on March 25th.—The patient having been anaesthetized, the frontal sinus was exposed by a horizontal incision immediately under the left eyebrow, and a vertical one in the line of corrugation, and to the inner side of the supra-orbital notch. There was no difficulty in finding the sinus, which being trephined, was found to be full of pus, but on attempting to pass a probe in the direction of the infundibulum, it went far backwards and to the right. It was not thought desirable, seeing the extent of the mischief, to make further attempts to find or force an entrance into the nasal cavities. The right nostril having been cleared of polypi, a drainage tube was inserted through the opened sinus and the wound closed. The patient bore the anaesthetic well, and recovered from the narcosis, but was never thoroughly conscious. Coma supervened and she died in forty-eight hours.

Post-mortem Examination.—The thoracic and abdominal viscera were found to be practically normal.

On opening the cranium, pus escaped from between the dura mater and the frontal bone, the dura mater being found to be freely separated from the surface of the bone, about two inches above the orbital plate, and backwards to the orbito-sphenoidal region, that is, in fact, along nearly the entire surface of the anterior cerebral fossa. Over both the frontal and sphenoidal lobes flaky patches of lymph were found in the arachnoid.

The vessels of the pia mater were markedly congested. The left frontal sinus was greatly enlarged and contained pus and detritus. The external opening was found to be situated at the level of the orbital ridge. Internally there was seen to be a small ragged orifice, which led into the peri-dural space, about one inch above, and to the left side of, the crista galli.

The cribriform plate of the ethmoid was necrosed and softened in process of breaking down, a probe introduced up the nostril passing

through the necrosed portion and entering the cranial cavity. This necrosed plate corresponded to the portion struck by the probe which had been passed for exploratory purposes during life.

No communication could be discovered between the nasal cavities and the frontal sinus.

The superior and middle turbinated bodies were found to be covered with foetid granulation tissue and a microscopic section of the inferior turbinals showed evidence of progressive atrophy. The wound made at the time of the operation was found to be firmly uniting.

Microscopic Appearances of Turbinal Body, from Section made by Mr. WYATT WINGRAVE.

The surface epithelial cells show advanced cloudy degeneration : hyaloid membrane has disappeared : lymphoid spaces contain a large number of large oval and round bodies, with and without nuclei, the nature of which is somewhat doubtful ; probably they are phagocytes. There are also non-nucleated round bodies, suggestive of micrococci ; the glands show advanced granular degeneration. The cavernous vascular channels are partly obliterated ; the periosteum is thickened, whilst the bone is not materially affected.

Remarks by Mr. LENNOX BROWNE.—This case is interesting. First, as showing the dangers which may accrue from neglect of the treatment of suppuration in the frontal sinus. Without doubt, so soon as a diagnosis was established by the bursting of the abscess, a passage should have been made through the nose to insure a free exit for the discharge.

Secondly. It indicates that communication between the nasal cavities and the frontal sinus by the infundibulum is not only not constant, but even when present is generally of such very small normal calibre that it may readily become closed, as a result of inflammation. It is probable that this obstruction of the infundibulum may be an important predisposing factor of frontal disease.

Thirdly. It is worthy of remark that so much mischief should have existed, and that suppuration should have extended so far into the peridural space, with so little indication of cerebral lesion.

Fourthly. We were, of course, prepared to find considerable extension of the inflammation into the ethmoidal region, but it was hardly expected that the condition was so hopeless as the autopsy revealed.

In any future case I should first assure myself that there is a free communication between the nose and frontal sinus, or if not, I should effect the same, as a first step of the operation—or at an even earlier period as an independent step—by the passage of an instrument in the normal situation of the infundibulum, that is, in the anterior portion of the hiatus semilunaris.

Lastly. It has been demonstrated, especially by Michel, and his observations have been confirmed by Robertson, of Newcastle, that there is a direct connection between empyema of the antrum and atrophic rhinitis. I may also *en parenthèse* allude to such a case seen this morning, in consultation with our President, in which not only do both these conditions exist, but there is also so long a spur springing from the left wall

of the septum that, according to Bosworth, we should expect hypertrophic instead of atrophic rhinitis.

The present case illustrates that there may be a similar connection—whether causal or resultant, I am not yet in a position to determine—between empyema of the frontal sinus and intra-nasal atrophy. It will be useful to bear these facts in mind in our observation of future cases.

Mr. BARK (Liverpool) related the history of a case sent to him in 1889 by an ophthalmic surgeon. The patient was a boy, aged fourteen. Some years before he had received a blow on the forehead from a stick. For twelve months preceding his presenting himself for treatment he



had noticed a gradually increasing swelling at the inner and upper angle of the left orbit. There was no pain, and he sought advice solely on account of the increasing deformity and diplopia.

He presented the appearance well shown in the photograph passed round by Mr. Mayo Collier. A tumour in the upper and inner part of the left orbit, elongated oval in shape, semi-fluctuating and elastic on palpation.

Manipulation caused some uneasiness, but no pain. The left eyeball was protruded and displaced downwards and outwards. There was no discharge from the nose, and rhinoscopic examination revealed nothing abnormal in that situation. On making an incision a quantity of thick, glairy, honey-like fluid exuded. The outer wall of the frontal sinus was eroded, so that the finger could be placed into the sinus, but a probe could not be passed into the infundibulum. An opening into the nose was made by means of a trocar, which was pushed through a thin plate of bone which separated the sinus from the nasal cavity.

A drainage tube with side holes was inserted, reaching from the forehead to the outside of the left nostril. The discharge became purulent

after a few days. Warm boracic lotion was syringed through the tube twice daily. The discharge gradually diminished in amount, and at the end of six months ceased. The drainage tube was then withdrawn, and the wound healed. The lad's appearance was restored to its symmetry, and normal vision was completely restored. He thought that great benefit might attend the operation of opening the sinus as described by Mr. Collier, especially in certain obscure cases of frontal headache.

Dr. DUNDAS GRANT.—*Case of Empyema of the Frontal Sinus.*

J. M., aged thirty-five, was sent for my opinion in July, complaining of pain over the left frontal region, and a discharge from the corresponding nostril. His trouble commenced last January with influenza, attended with severe frontal pain, throbbing and fulness, more marked on the left side. Early in the attack a discharge of pus came from the left nostril, giving him relief from the throbbing and pain. There was no haemorrhage at any time.

The discharge is most copious in the morning, almost absent at night, and it is much clearer when he has a cold. It is not modified by lying on either side, but is worse when he assumes the upright posture.

There is slight fulness and tenderness over the left frontal sinus. The left nasal passage is narrow, there is a swelling of the middle turbinate body, and from below it there wells out the creamy pus seen in empyema of the antrum.

On Lichtwitz's puncture no pus was evacuated, and by transillumination both antra appear translucent. I could not illuminate either frontal sinus. The application of cocaine to the middle turbinal gave temporary relief, and I ordered, for the time, an antiseptic wash, and an ointment for the mucous membrane.

It is my intention to open the frontal sinus from the superciliary region, and I hope to be able to report well of the case at our next meeting.

Mr. WYATT WINGRAVE related for Dr. Orwin the case of a boy, six years of age, with a discharge of pus through an opening on the right side of the nose. There was some pain, and the opening had formed between six and eight months previously. On introducing a probe, it passed backwards and upwards for three inches, giving a distinct impression of dead bone, and on withdrawing the probe blood followed. The sinus was filled with granulation tissue. He supposed that there was abscess of the ethmoid and frontal sinuses, although as shown by Mr. Collier, and generally admitted, a frontal sinus was rare at this age.

Dr. SCOTT (Onehunga, New Zealand).—*Notes of a case of Empyema of the Frontal Sinus.*

In 1890 a shipping clerk came under my care with the following history:—He is a married man with healthy children. Until five years ago he had been perfectly healthy and had won several prizes as an athlete, but of late years he found himself less vigorous. For the past six years he had been suffering from what he called "brow ague," which he considered identical with what his father formerly suffered

from, and he thought he had inherited it. He had periodical attacks of headache, occurring with remarkable regularity, at intervals of about a month or six weeks, independent of the weather or of any other known exciting cause. The distress was confined to the right side of the forehead, and the most painful area corresponded to the distribution of the supra-trochlear nerve of that side. This area was at the same time very sensitive to touch. In each attack the pain came on at first very slightly, and gradually increased in severity until it became, as he described it, unbearable, and then after a week or so of pain, which interfered with his work and prevented him from sleeping properly, it suddenly ceased.

At this time, corresponding absolutely with the cessation of pain, a foetid discharge of ichorous pus, offensive both to himself and to those in his company, on account of its odour, would commence to run from the right nostril, in some considerable quantity, for a period extending from a few days to a week or so. At a variable, though comparatively short period after the cessation of this discharge the pain recommenced, and he went through another cycle of disturbance as previously described. He had at various times given quinine, arsenic, and other anti-periodics a good trial, but obtained no benefit from their use. Recently, antipyrin had given a little temporary relief from the pain.

On examination, the area corresponding to the right frontal sinus was clearly more prominent than the same region of the other side. There was no perceptible modification of any other portion of the walls of the frontal sinus. The right nostril presented some slight hypertrophic rhinitis, more especially of the middle turbinal bone, but there was no obstruction to nasal respiration. The antrum was clear; the eye was without fault and was normal in its position and movements; the fundus was healthy; the temperature whilst he was under my observation was normal, nor could I obtain a history of the usual symptoms of suppuration. I could get no definite history pointing to the cause of the affection, though his occupation for ten years or more had entailed frequently leaving an office and standing about on a wharf in all kinds of weather, and this he was accustomed to do without putting on any extra clothing; this would expose him to attacks of catarrh. His family history is unimportant, except in the fact that his father had suffered from similar pain for many years in earlier life, but is now quite well.

From the symptoms and physical signs I concluded that there were sufficient grounds for exploration of the frontal sinus.

The patient being anaesthetized, I made an incision through the tissues parallel to and just above the right eyebrow, exposing the inner two-thirds of the supra-orbital ridge, reflected the periosteum from the bone at the most prominent part, which was just above the position of the supra-trochlear notch, when there is one, and at this point drilled through the outer table of the skull, using an ordinary carpenter's bradawl, filed so as to have an acute-angled point. On removal of the drill a bead of pus welled up through the opening. I then probed the cavity to explore its size and the position of its walls, and, using the drill as a director, gouged through the bone, making an opening into the frontal sinus one-third of an inch in diameter. I next attempted to pass a probe

through the infundibulum into the nares, but finding some difficulty in doing this, I made sections of two or three skulls, and so found the proper curves to be given to the probe to allow of its passage, and as the cells and canals in the skulls I used were fortunately fairly similar to those of my patient, I now found the probe to pass readily. I could detect no disease of bone.

From this time there was a free discharge of pus, both from the opening in the skull and from the nose. The cavity of the sinus was irrigated with antiseptics for about six weeks, during which time I passed daily a properly curved probe through the sinus into the nose. The wound gradually contracted and finally healed, leaving but a slight cicatrix.

In May, 1892, when I last saw my patient, he was quite well, and there had been no recurrence of discomfort. This case presents some points of difference from those I have hitherto seen recorded, as usually the thinner plates of bone have given way to the pressure, as would be expected, and so one or other of the orbital plates have been displaced.

Mr. PEGLER referred to the case of a little girl of fourteen. The salient features were a puffy swelling on the inner aspect of the left fronto-nasal articulation, with displacement of the eye outwards. Examination of left nostril with speculum showed a distension, and hypertrophy (? cystic) of the left middle turbinate. It was hard to touch, very vascular, bled easily, but nothing could be snared from it. At St. Mary's Hospital, where the case occurred, Mr. Lane made an incision over the swelling, the bone was trephined, and an opening made into the anterior ethmoidal cells large enough to admit a finger. It was probable that a communication existed between the frontal and ethmoidal sinuses.

Glairy semi-purulent fluid escaped from the opening made, and several lappet-like proliferations of the mucous membrane were curetted away with a spoon. A perforation was afterwards made into or beside the middle turbinate, and a drainage established through the opening in ethmoidal cells. The opening is closed now, but the case is not concluded. It is, however, pretty clear that the hypertrophy of the middle turbinate, and consequent blocking of the left infundibulum, was the cause of the distension of the accessory sinuses and growth of the proliferations.

Dr. MILLIGAN said he had been three years associated with a special hospital without ever having met with a case of this kind. He asked for statistics as to its frequency. He asked whether anyone had operated on a case of abscess of the frontal sinus, when there was no communication with the nose. He thought that ophthalmoscopic examination must be of great importance in such cases. Only a thin plate of bone separated the frontal sinus from the base of the brain, and retinal examination might give valuable prognostic information. He remarked on the fact that in Mr. Browne's case, with such extensive lesions, no ophthalmic signs were discovered. He asked whether any cases were on record in which the affection had resulted from direct injury to the part.

Mr. STOKER said he had listened with great interest to the series of cases. He said that he had never seen a patient whose condition was suggestive of this lesion, but he himself had on one occasion suffered from severe frontal pain following a bad cold in the head, and this was

accompanied by a profuse discharge of a yellow colour which brought relief. He suggested that under certain circumstances catarrhal conditions might result in blocking of the infundibulum, and so conduce to accumulation. In every case there had been some discharge from the nose, indicating the patency of the infundibulum. This would lead to the conclusion that one of the first steps ought to be to attempt to restore the patency of that canal; a course which has the advantage of offering a dependent opening through which the discharge could escape. Such treatment might render more serious measures unnecessary.

Dr. HILL did not believe that the case mentioned by Mr. Pegler was one of disease of the frontal sinus. He had seen the case, and had come to the conclusion that it was one of fibroma of the nose. The middle turbinated bone was much hypertrophied. Not only were the nose and eye displaced, but the nasal process of the superior maxillary bone was deviated. There was, however, no displacement of the bone at the angle of the orbit. He did not suppose that a girl of sixteen had a frontal sinus, or at most but a small one. He maintained that it was not from the frontal sinus, but from the ethmoidal cells that the discharge came. It was at first diagnosed at St. Mary's Hospital as an exostosis, then as malignant disease, and eventually opened, polypi being found as described. He had recognized it as being a case for which he himself was not sufficient, and therefore handed the case over to Mr. Lane. These symptoms in young people always pointed to disease of the ethmoidal cells. Since then he had found in the dissecting room a skull in which the ethmoidal cells were in communication with the frontal cells. Mr. Lane was of opinion that the case in question was such an one. He quite agreed, however, that obstruction of the nose might give rise to an accumulation in the frontal sinus.

Mr. MAYO COLLIER, in reply, said he had been asked whether they were to consider that this condition was, as a rule, associated with disease of the nose. He had distinctly stated that this was not always so. In the cases reported there had been little or no disease of the nose or throat, except in the cases of polypus of the sinus. He had pointed out that polypi were almost always associated with the same disease in the nose, but otherwise there need be no association. With regard to the frequency of these cases, he said they must go to the ophthalmic surgeons for that information, seeing that patients usually applied to them in the first instance. He was disposed to think that such cases were by no means rare in ophthalmic practice, but he was not prepared to say in what proportion. In reply to the question as to the existence of disease of the frontal sinus consequent on injury, he said he had seen a case last week in which the front wall of the sinus had been smashed in.

Mr. LENNOX BROWNE observed that the fact that the diseased cases generally came under the notice of ophthalmic surgeons might explain how it was that concomitant disease of the nose had not been remarked. In all the cases observed by them there was disease of the nose. He hoped they might turn out to be cases in which by an operation on the eye they might hope to get rid of a deforming disease of the face.

Mr. COLLIER said that explanation was possible, but he would not like to endorse it, in view of the opinion which surgeons generally held with regard to their particular abilities.

Mr. LENNOX BROWNE insisted on the fact that many diseases of the eye were due to diseases of the nose.

The PRESIDENT said that he had recently had three cases of inflammation of lining membrane or of abscess of the frontal sinus, the patients all coming as ophthalmic cases because of the eye symptoms. In the first two cases there was marked swelling over the frontal sinus, with downward and forward protrusion of the globe. He treated them in exactly the same way as for mastoiditis, cutting down and finding carious bone, which was followed by rapid recovery. In the second case there had been a very severe attack six months previously (due to exposure to cold) of intense frontal neuralgia on one side. She had then apparently recovered after a month or two of treatment. The third patient, a young girl, had similar symptoms, accentuated on reading, but this he thought was due to the position assumed, and not to the mere use of the eyes. There was a tender red area over the frontal sinus. She recovered completely after the application of leeches. In all three cases there was a history of influenza previously, and he thought this class of case had become much more common since the prevalence of influenza.

Dr. DUNDAS GRANT expressed his admiration for the paper. He asked whether the sections of skulls demonstrated by the author were accidental specimens, or whether the specimen at each age was an average one. (Mr. COLLIER.—Each is an individual case.)

There seemed to be a want of definite rule in respect of the sinus formation. He thought that such cases were rare. The case brought forward by himself was almost unique in his experience. He was anxious to hear from members whether there was any hopeful way of treating them short of external operation.

Mr. PEGLER said, that if as suggested by Dr. Hill the case alluded to was really not one of fronto-ethmoidal disease, the case was all the more interesting. He hoped that at some future meeting the question of ethmoidal disease would be brought forward and dealt with in the same way as the question of disease of the frontal sinus had that day been dealt with.

Mr. WYATT WINGRAVE observed that the infundibulum was looked upon as a normal aperture of communication between the nose and the frontal sinus, and this raised the question as to its exact relations to the ethmoidal cells which do communicate with the frontal sinus. He observed that one authority described it as a special canal, whilst another considered it as being merely a modification of the anterior ethmoidal cells. At all events it was extremely difficult to find, even in the dissecting room.

The meeting then adjourned.

NEW PREPARATIONS.

Messrs. Allen and Hanburys.

This eminent firm of chemists has forwarded to us samples of their "Disintegrating Tabellæ" and "Medicated Throat Pastilles." We have submitted the following to experiment—

- Chloride of Ammonium Tabellæ (gr. 3).
- Borax Tabellæ (gr. 5).
- Chlorate of Potash and Borax Tabellæ.
- Cocaine Tabellæ (gr. $\frac{1}{20}$).
- Chlorate of Potash, Borax and Cocaine Tabellæ.
- Chlorate of Potash Tabellæ (gr. 5).

Messrs. Allen and Hanburys say that they have "always entertained serious doubts as to the expediency of administering sparingly soluble substances in firmly compressed masses, and it was with no little satisfaction that in the course of a series of experiments we came upon a fact admirably suited to remove this chief objection to the use of compressed drugs." It is this solubility of Messrs. Allen and Hanburys' compressed tabellæ which makes them so distinct from other preparations in the market. We have tried them and found them satisfactory in this respect. Messrs. Allen and Hanburys have now a great number of these compressed tabellæ of different drugs and combinations.

The Medicated Throat Pastilles submitted to us are—

- Tannin Pastilles.
- Chlorate of Potash and Borax Pastilles.
- Chlorate of Potash Pastilles.
- Guaiacum Pastilles (gr. 2).
- Chlorate of Potash, Borax and Cocaine Pastilles.
- Cocaine Pastilles (gr. $\frac{1}{20}$).

All these are excellent preparations, very well dispensed, and pleasant to take. Even the usually nauseous guaiacum is very well disguised. A great number of others are prepared by Messrs. Allen and Hanburys.

All preparations emanating from the house of Allen and Hanburys are sure to be distinguished by excellence of manufacture, elegance, and reliability, and we can say the same of the samples now submitted to us.

NEW INSTRUMENTS.

Improved Anæsthetic Inhalers, with Patent Respiration Indicator. Krohne and Sesemann, London.

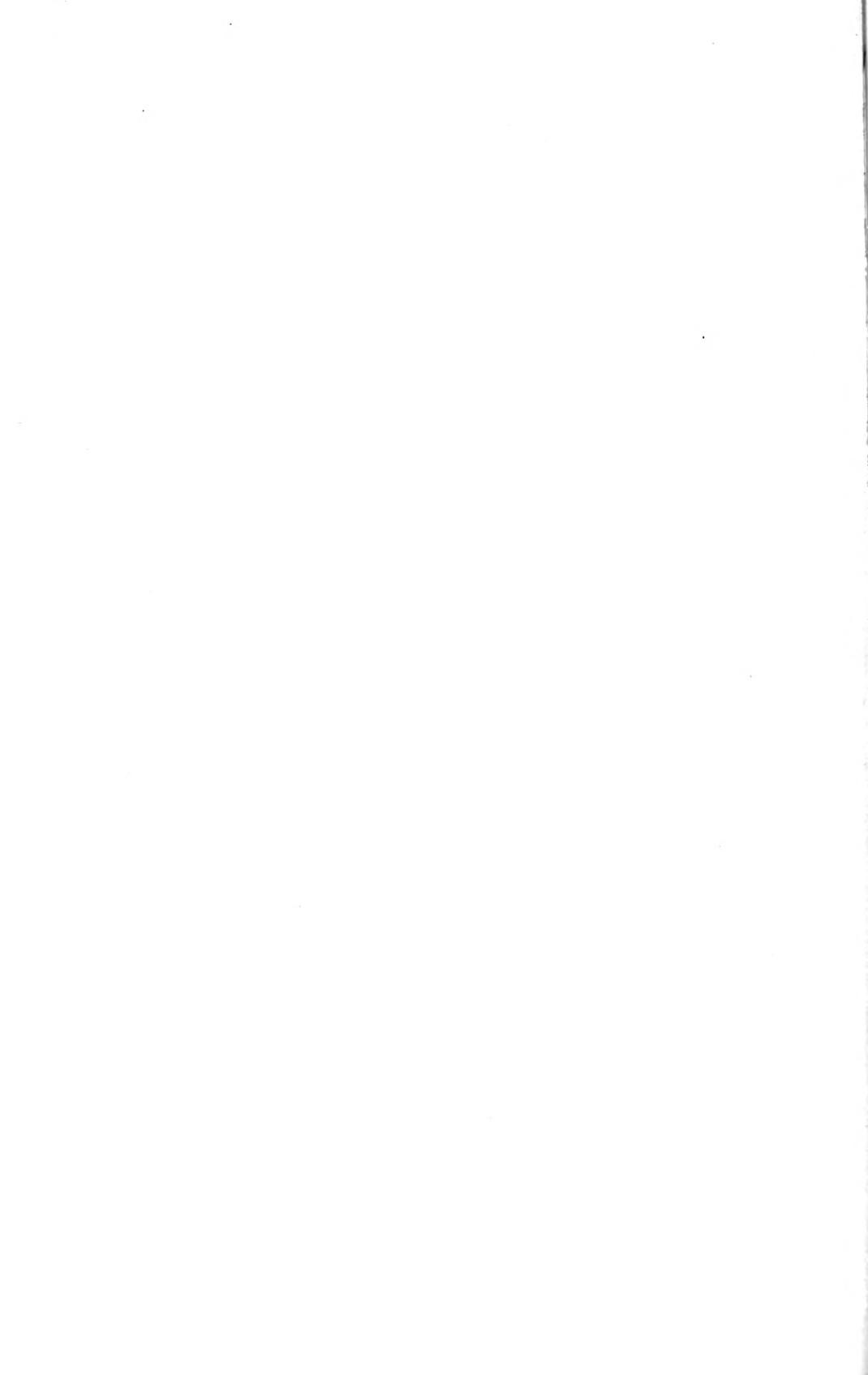
CONSCIENTIOUS and experienced anæsthetists are notoriously and properly conservative in the use of the methods and apparatus they employ. They do not readily depart from those with which long personal association

has given them familiarity, and in which, consequently, they have an amount of confidence which is not easily shaken. But there are many who are still on the search for the best way. *A priori* there seems a very great deal to recommend the modification of Junker's well-known inhaler as now offered by Messrs. Krohne and Sesemann. As in Junker's original instrument, the chloroform vapour is plentifully diluted with air, and the amount of dilution is capable of still finer graduation by the addition of a stop-cock between the bellows and the bottle. The amount administered can, and should be at the commencement so slight, and the dilution so great, as to cause no discomfort, and certainly no such irritation of the glottis as to occasion a spasm.

This great end being achieved, a speedy narcosis can be produced without struggling. How "insinuating" this method can be made is readily appreciable by anyone who, like the writer, has tested it on himself and by very gentle successive pressures on the bellows induced commencing unconsciousness without the slightest sensation of choking. We have confirmed this by observation in practice, the necessary condition being the minimal pressure at the outset. The observation of the respiration is greatly facilitated by means of a feather indicator loosely hinged to the large opening for entry and exit of air on the front of the face-piece. This indication is not open to the same fallacy as that given by the movements of the chest, because chest-movements may be visible while no air is entering the lungs, as Dr. Lauder Brunton has pointed out.

The extraordinary safety of chloroform anaesthesia in child-birth justifies the use of a special flannel face-piece as recommended for use in this circumstance, the pressure on the bellows being practised by the patient herself, and ceasing, of course, on the occurrence of muscular relaxation. For operations about the nose and face a conveniently curved metal tube is provided, so that anaesthesia may be kept up without the face being covered.

No apparatus is ever likely to supersede the necessity for carefully trained observation in the use of anaesthetics, but this one offers the nearest approach to whatever "makes for" safety. It certainly uses the smallest possible amount of chloroform, and impregnates the air surrounding the patient and administrators proportionally little. That air is better calculated, therefore, for favouring return to consciousness under the action of natural or artificial respiration.



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CASE OF OTITIS EXTERNA DUE TO AN
UNUSUAL FOREIGN BODY.

By FREDERICK COX, M.B., L.R.C.S.E., Senior Assistant-Surgeon Ear
Institution, Manchester.

ALL aurists are familiar with inflammations of the external meatus, and sometimes of the tympanum, occurring in children, and produced by the presence of various kinds of foreign bodies, but it is unusual to find such cases in grown-up persons. The chief points of interest in this case are:—

(1) That the patient was an adult, and not likely to play pranks with his ears; and

(2) The absolute ignorance on the part of the patient that any foreign substance was in his ear.

(3) The unusual nature of the foreign body.

The history is briefly as follows:—

Mr. S—, a merchant, consulted me concerning his left ear, which had troubled him for two months. He complained of pain, deafness, constant tinnitus, and constant discharge. He could hear the watch at four inches from the ear, and the tuning-fork better at the external meatus than on the mastoid.

On examining the ear the meatus was found to contain pus, and on removing this by means of wicks of absorbent cotton the walls were seen to be reddened and inflamed.

On looking through the speculum I saw on the upper wall close to the membrane what I took to be a bead of pus, and on trying to remove it with the probe found it was not pus as I imagined, but a bristle.

Careful examination under a good light revealed more of them

plastered against the inflamed walls, and I managed to remove with the angular forceps about a dozen, varying in length from an eighth of an inch to a quarter of an inch, and resembling in every way the bristles of an ordinary toothbrush.

The patient was intensely astonished, and could not give any explanation as to how they had got there. His time was passed in the counting-house, and there was nothing in the nature of his vocation to make him liable to the entrance of foreign bodies into his ear.

His hearing was improved by the removal of the bristles, and I afterwards learned, though I never saw him again, that he had got quite well.

A CASE OF EPITHELIOMA OF THE TONGUE SUCCESSFULLY TREATED BY ELECTROLYSIS.

By Dr. E. DRAISPUL.

Throat and Ear Department of the Obuchoff Hospital at St. Petersburg.

THE patient was a male of twenty-five. His mother died of tuberculosis of the lungs : his two sisters are invalids. The patient's disease dates from the middle of 1890, when he began to complain of cough, pain in the chest on breathing, and dyspnoea. At the end of September of the same year the patient noticed a small ulcer at the right side of his tongue ; this ulcer, increasing slowly, did not heal, and he applied at one of the city hospitals. An examination at the hospital showed a tubercular process to exist in the lungs, a pleuritic exudation was present on the left side : and an oval ulcer on the right side of the tongue. The patient was subjected to general treatment, as well as local measures, and the ulcer of the tongue was often cauterized with "a white crystal" (arg. nitr. probably).

Notwithstanding this treatment the ulcer continued to enlarge, and at the end of November it was twice the size it had been when entering the hospital. At this time the patient left the hospital and came under the care of one of our well-known surgeons, who took him to his hospital in order to operate. But immediately before the operation the surgeon examined the patient, and finding the above-mentioned condition of the chest, he refused to operate, as he considered it unsafe to administer chloroform to the patient. The same surgeon then sent the patient to the Obuchoff Hospital, where he came at the beginning of January, 1892. He was a young man of more than medium height, sparely built and nourished, pale in complexion : complained of cough, dyspnoea, abundant expectoration, which was often stained with blood. At both pulmonary apices there existed a tubercular process of slight degree ; at the left side of the chest, beginning at the upper angle of the scapula, there was absolute dulness, and puncture showed the cavum pleurale to be filled with a sero-purulent fluid. On the right side of the tongue, at a distance of 1·5 centimetre from the surface, there was situated an ulcer, 2·5 centi-

metres in length, and 10 centimetre in breadth. The base of the ulcer a little excavated, was covered with a thick greyish matter; the margins were a little infiltrated and undermined. The ulcer did not cause any pain to the patient. On the right side of the neck there were a few (five or six) hard and enlarged glands, palpation of which was painless. The swelling of these glands was noticed by the patient about two months previously. The patient denied any syphilitic affection, and there were no signs of this disease.

As the ulcer was undoubtedly of malignant nature, I thought it necessary to destroy radically the diseased part of the tongue. On account of the impossibility of administering chloroform, I had the choice of two methods, viz., galvano-cautery and electrolysis. I preferred the latter for the following reasons: '*a*' it is comparatively painless, and can therefore be tolerated even without local anaesthesia; '*b*' the very slight reaction after electrolysis; '*c*' the more durable result as to the prevention of recurrence I have noticed after electrolysis, in comparison with the cautery. The latter point is of great value in malignant cases, and has been proved in this case, as will be seen later. Before the operation I removed a piece of the ulcer for microscopical examination. The destruction was accomplished with a steel needle, connected with the negative pole, using a current of 10 to 12 milliamperes for ten minutes. The full destruction was obtained in six sittings, at an interval of three or four days.

When the patient came to me for the second time, I noticed on the top of the tongue two very small grey nodules, which increased, and in a fortnight were double the original size. These two nodules I destroyed with the cautery point. At the end of February the ulcers had healed, and presented very thin cicatrices. The patient continued to visit me every week, and when he came in the middle of April I found, at the site of the two small nodules destroyed by the cautery, two comparatively large ulcers, resembling that of the right margin before it had been destroyed by electrolysis. As the result of the cautery in this case proved not to be durable, I destroyed these ulcers also with electrolysis. For the swollen lymphatic glands I did nothing, but from the third sitting of electrolysis they began to diminish, and with the cicatrization of the ulcer they disappeared totally. The microscopical examination of the tissue removed from the ulcer showed the structure of an epithelioma.

It was thus a case of epithelioma of the tongue with probably affected glands, occurring in a phthisical patient, cured by electrolysis. At the present time (January, 1893), eleven months after the last operation upon the margin of the tongue, and nine months after destruction by electrolysis of the ulcers of the dorsum, all the cicatrices are in a fairly good condition, and no swelling of the glands of the neck can be found.

This case is interesting—'*a*) as a case of epithelioma of the tongue in a comparatively young person; (*b*) from the possibility of a faulty diagnosis, as the youth of the patient, the undoubtedly tubercular condition of his lungs, and the absence of any signs of syphilis, were in favour of the tubercular nature of the ulcers, and, indeed, all the medical men who saw the patient thought the affection to be of this nature.

(c) the splendid result obtained by electrolysis until the present ; (d) the more durable result of electrolysis in comparison with the galvano-cautery : (e) the apparent power of electrolysis to act not only upon the parts surrounding the needles, but even at a distance, as has been shown in this case, where the enlarged glands of the neck disappeared as the ulcers were cured by electrolysis. This feature of electrolysis had been mentioned many years previously by Groh¹, who observed the disappearance of enlarged glands after destroying an epithelioma of the lower lip.

A CASE OF MYXŒDEMA IN THE ADULT, FOLLOWING BRONCHOCELE IN THE CHILD.

Successfully treated by Hypodermic Injections of Thyroid Juice, and by feeding with Thyroid Glands of the Calf; with Notes on the Treatment of Obesity and Chlorosis.

By W. M. ABBOT-ANDERSON, M.B., B.S. (Dun.), M.R.C.S.

AS so much interest is now attaching to myxœdema, I think it worth while recording the following case, which has lately come under my notice :—

Mrs. B., aged thirty-two ; married at twenty. Two children aged respectively eleven and nine, and an eight months' child born between these two died shortly after birth. No miscarriages.

Past History : As a child the patient suffered from unilateral bronchocele, and was treated for it by tincture of iodine. She first remembers it at the age of five. I have ascertained that it was undoubtedly goitre from which she suffered, and not strumous glands as I thought probable. Moreover, the patient presents no signs of past struma, nor do the children. In 1887 she had a very serious attack of erysipelas, and was ill in bed for one month, and ailing for three months after leaving her bed, but before this experienced very good health.

The patient has been in bad health for the last four years, and during this time has been treated for hysteria by the Weir-Mitchell method, though not satisfactorily carried out. She afterwards went to Biarritz for three weeks, and was on the Continent for three months altogether, and derived therefrom a certain amount of benefit ; but in spite of all treatment her health has gradually become worse, and when she came under my care, early in October, she was suffering from the following signs and symptoms :—

Facial expression typically myxœdematous. Skin very dry, particularly the palms of the hands, where the lines showed an opaque pearly whiteness. Hair falling out. Loss of perspiration. Feet and hands swollen ; this varying at times. Complained of being unable to get warm, and of great languor and want of energy. Speech not affected. Disposition unaltered. Appetite very bad. Constipation very trouble-

¹ Groh, "Die Electrolyse in der Chirurgie." Wien, 1871.

some. Weight, 9 stone $2\frac{1}{2}$ lbs. Examination of blood under microscope showed no alteration as regards the leucocytes, but the red blood corpuscles were pale and ran together in rouleaux. Disturbed sleep. Urine showed no trace of albumen. Loss of memory, not considerable. The catamenia regular throughout, though rather excessive.

Family History.—Her mother had a similar swelling in her throat, but did not suffer from myxædema. There is no other hereditary tendency, except consumption on her father's side, she having lost three cousins and an aunt from this cause. No history of neuroses.

Treatment.—This was carried out by hypodermic injections between the shoulder blades of twenty minims of thyroid juice, which was prepared for me by Messrs. Brady and Martin, after the formula of Dr. Murray of Newcastle-on-Tyne. It was commenced on October 8th, and the first three injections were given with intervals of three days between each, the next two with only two days intervening, and subsequently every other day for six injections. On November 4th a calf's thyroid, fried and served as a sweetbread, was given for dinner, and repeated every other day for three occasions, with injections on the intervening days. Altogether fifteen injections were given, and three thyroids were eaten in thirty-six days, and during this time the patient was taking a mixture of arsenic and iron three times a day, after meals.

Result.—All the symptoms rapidly improved, and during the treatment the patient lost a little more than a stone in weight (on November 14th, 8 stone $1\frac{3}{4}$ lbs.). Her friends have particularly remarked the alteration in her facial aspect, and say she wears her normal appearance of four years ago. During the last week she has eaten two calves' thyroids and is taking cod liver oil and malt extract, her weight showing an increase of 1 lb. The general improvement is well maintained. My patient had been vaccinated on June 12th last, and as a result of the injection the marks became hyperæmic, very irritable, and finally desquamated.

The temperature never rose above 99.5° F., the morning register before the treatment commenced being 97.8° F.; so that, allowing for the subnormal temperature usually found in myxædema, the injection undoubtedly produced slight pyrexia.

No alteration in the size of the gland seems to have taken place, but owing to diminution in the amount of subcutaneous fat it is rather more apparent than before.

Remarks.—It is interesting to note the length of time which has intervened approximately twenty-five years) since the first appearance of the bronchocele and the commencement of the symptoms above described, during which time sufficient alteration in the structure of the gland must have taken place, so as ultimately to culminate in myxædema.

It has been noticed in cases of exophthalmic goitre, that with the appearance of the myxædematous symptoms the exophthalmos has diminished, as has also the size of the gland, but in the present case there is no alteration in size, so we must assume an alteration in structure.

In what does this alteration consist?

Of course, this I cannot answer, but it is probably due, as has already

been shown in many instances, to the conversion of the gland substance into fibrous tissue.

Undoubtedly this juice acts by promoting tissue change—that is, by increasing metabolism, as is well shown from the good results I have experienced in treating cases of obesity by the thyroid injection.

This shows that the functional duty of the thyroid is not concerned alone with the metabolism of mucin and mucin-forming elements, but also with that of adipose tissue, for it has been demonstrated *post-mortem* that the increase in bulk is accounted for by overgrowth of the subcutaneous fat.

On the theory that the function of the gland is at any rate in part haemopoietic, I am treating cases of chlorosis, associated with a considerable increase in the subcutaneous fat, by the same method, but at present with no apparently good results so far as the blood condition is concerned, but only as regards the diminution in weight, and this is of questionable benefit; thus showing this function is not exerted directly on the red blood corpuscles.

My experience concerning the treatment is that it is impossible to lay down any law as to the amount to be used at each injection, or as to the frequency of the injections, but, providing they are well tolerated, the best index to be guided by is the diminution in weight, as showing the increased amount of tissue change. In future I shall not be quite so energetic, and should advise a longer and more gradual treatment. I think it most important to spend at least fifteen minutes over each injection, also to conduct them in a thoroughly antiseptic manner; and, to having adopted these precautions, as also to the careful preparation of the juice, I chiefly attribute the fact that no bad symptoms were produced.

My patient only experienced a sensation of faintness, and numbness in the arms, after the first two injections, and at the end of the first week she went about her daily routine of life as usual, and, moreover, since the treatment has not suffered from constipation.

As every gland from which the extract is prepared cannot possibly be equally rich in the ferments, and hence a very important source of danger may creep in, it is most necessary to arrange a test by which every sample of the extract supplied to the profession can be standardized.

A word of warning concerning the supply of the glands from the butcher. It is most necessary to personally ascertain that the thyroid is being eaten, as I discovered my patient was, on changing her butcher, supplied with parotid glands instead.

METHOD OF FIXING PATIENTS FOR OPERATIONS UNDER ANÆSTHESIA IN THE SITTING POSTURE.

By DUNDAS GRANT, M.A., M.D., F.R.C.S. Eng.

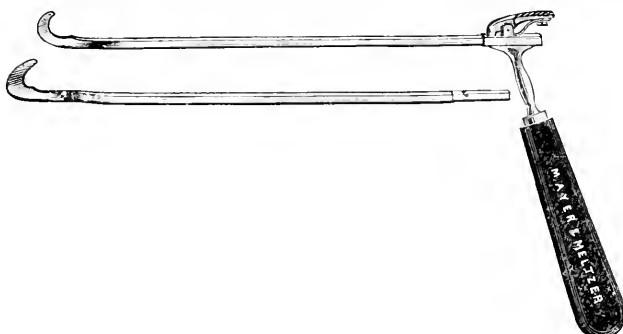
For many of the shorter operations on the mouth, throat, nose and ear it is very desirable to have the patient in the position in relation to light, attitude, &c., in which examinations are habitually made. At the same time the sitting posture has many inconveniences for the administration of anaesthetics, and in it chloroform is practically inadmissible. Ether, however, as Dr. Silk has said, may be given with comparative security, and nitrous oxide without any anxiety whatever. Several years ago I demonstrated at the Central London Throat and Ear Hospital the possibility of removal of tonsils or adenoids, or even both, during the administration of nitrous oxide, and my colleagues were not slow in adopting a practice which in that institution has now become a matter of daily routine. Hitherto one great difficulty has been the tendency of the patient to slip off the chair at the moment when the anaesthesia becomes complete, and to have recovered consciousness by the time he is "collected" and propped up again. To prevent this accident the following simple method of fixation is recommended. A short jack-towel with the seam unstitched is placed round the back of the patient's neck like a priest's stole, with the ends hanging down in front. Each of these ends has firmly attached to it about two feet of soft, thick cord or thin rope. He is then seated on a chair which has a very narrow, high back, on the posterior surface of which, and at about the height of the patient's head, there is a stout upright hook. The middle of the jack-towel is raised off the patient's neck, lifted over the back of the chair and laid on the hook. The two ends are then brought backwards under the armpits and round the back of the chair. The ropes are then crossed over the hook and tied in a bow. The patient is thus simply, securely and "unalarmingly" fixed so that he cannot slip down. A band may be placed round the forehead to keep the head fixed, but this is most effectively and pleasantly done by the hands of someone standing behind. At the same time the patient can be instantly released by the simple pulling of the ends of the ropes forming the bow.

A NASAL SEPTUM KNIFE.

By GEORGE W. MAJOR, M.D., Montreal.

THE knives, as illustrated, are intended for the removal of cartilaginous and bony crests or spurs from the nasal septum. These outgrowths for the most part offer much less difficulty to removal by the septum knives than by either saw or drill. The operation is almost instantaneous, and

under cocaine, absolutely painless. The view is, furthermore, unobstructed by bleeding. The hooked knife is introduced through a speculum into the nasal chamber to be operated upon, passed well behind the posterior

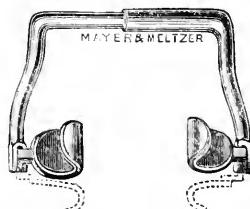


extremity of the crest or spur, and, hugging the flattened side of the knife closely to the septum, the growth is removed with neatness and dispatch. A number of blades are necessary to meet the varying conditions found in nasal deformities. The universal handle, fitted with a spring catch, will be found both strong and convenient. The above instrument has been made to my designs by Messrs. Mayer and Meltzer, London.

MOUTH GAG.

By JOHN BARK, F.R.C.S., Hon. Surgeon to the Liverpool Hospital for Diseases of the Throat.

HAVING for some years used the gag well shown in the accompanying cut, I take this opportunity of recommending it to all surgeons who are in the habit of frequently performing operations on the mouth and throat. In the removal of hypertrophied faucial or pharyngeal tonsils,



either with or without an anaesthetic, but especially with nitrous oxide gas, it is simply perfect.

The following are some of its advantages:—

1. It is easily placed in position, is self retentive, and is easily removed.
2. It gives a full view of the parts without impeding the passage of the tonsillotome or other instrument.
3. It requires no special assistant to keep it in place.

and, therefore, will be found particularly valuable where rapidity is a *sine qua non.*

It is made for me by Messrs. Mayer & Meltzer, of 71, Great Portland Street. London.

ANNOTATIONS.

THE MALIGNANT TRANSFORMATION OF INNOCENT GROWTHS.

THE possibility of malignant degeneration in benign growths is the subject of a thesis taken up by Dr. Balloch ("Med. News," Jan. 7th, 1893), who believes the majority of members of the profession to entertain such a change as possible. As the author remarks, the question is one of not merely theoretical importance, but its determination bears directly upon the surgical propriety of treating innocent growths as a possible element of danger. While such a proposition is accepted in general surgery and by pathologists as a fact not calling for discussion, indeed one of not infrequent occurrence, it has in later times been disputed as regards the throat by Semon, who in 1887 brought forward a collection of over 3000 cases of growths of the larynx, to support the thesis that malignant degeneration of an innocent growth of the larynx, if ever it did occur, was an event of extreme rarity. Of Semon's collection it might be considered that this transformation had occurred in five cases, but only in one, that of Elsberg, were the facts recorded with any degree of fulness. Solis-Cohen, Bosworth, Gottstein, Lennox Browne, Seiler and Fauvel all believed such a change to be possible, and some think it to occur frequently; but facts to support such a view are rather conspicuous by their absence, and the only extensive collection of statistics points in entirely the opposite direction. To contend that if such a transformation occur in the larynx it is only in persons with a special predisposition to malignancy, is only to shift the difficulty a little further back. The next question that arises is, in what consists this predisposition? and the further question arises, why should the larynx show such an immunity as is not possessed by other regions of the body? One of the main factors in determining malignant degeneration in healthy tissue is irritation, and this is shown to be an important determining factor in all other regions of the body. The larynx itself is not free from this factor. Dr. Balloch's general conclusions will find general acceptance as being in accord with pathology. They are that such transformation may occur, that there is nothing in the modern theory of tumours and tumour formation to contra-indicate the possibility of such a change; facts enough are now on record to show that such a change may and does occur, although but rarely, and that the change is more frequent in growths of mesoblastic origin, especially in so-called uterine fibroids than in any class of neoplasms.

As regards the throat, the question has not been set at rest, and though the statistical evidence up to now presented shows, so far as it goes, the rarity of the event, it has not determined the impossibility of the occurrence of such transformation which, indeed, would make the larynx a somewhat unique organ of the body, and it has dealt only with one aspect, and that a comparatively small one of the whole question. As Dr. Balloch remarks, "Taking into consideration the elements of uncertainty surrounding all merely clinical observations, it is to the pathological anatomist rather than to the surgeon that we must look for the evidence necessary to settle this question. Can he show us a growth containing within itself at the same time unmistakeable evidences of innocent and of malignant action, and presenting these changes in such a way as to show that the one has shaded into the other?"

Such pathological studies in reference to the throat and larynx are greatly needed, and we trust that the time is not far distant when the pathology of the subject may be sufficiently and scientifically worked out. The elucidation of the pathological relations between syphilis and malignant disease of the larynx is a subject full of interest, and practically virgin soil for the pathologist, and we commend this study to our younger scientific laryngologists as one of great scientific value.

THE INTERNATIONAL CONGRESS, ROME, 1893.

THE Organizing Committee for the Section of Laryngology at the forthcoming Congress in Rome is as follows :--

Dr. D'AGUANO (Palermo) ; Dr. DIONISIO (Turin) ; Dr. EGIDI (Rome) ; Dr. C. LABUS (Milan) ; Dr. F. MASSEI (Naples) ; Dr. MASINI (Genoa) ; Dr. A. FASANO (Naples) ; Dr. F. FELICI (Rome) ; Dr. F. PATELLI (Venice).

And for the Section of Otology :—

Dr. BRUNETTI (Venice) ; Dr. COZZOLINO (Naples) ; Dr. DE ROSSI (Rome) ; Dr. FICANO (Palermo) ; Dr. GRADENIGO (Turin) ; Dr. GRAZZI (Florence) ; Dr. LONGHI (Parma) ; Dr. SAPOLINI (Milan).

Every effort is being made to render the Sections worthy of the great occasion. It has not yet been decided definitely whether the International Congress of Otology, which ought to be held in Florence during 1893, shall be merged into the International Congress of Rome, or shall be postponed until 1895 or 1896.

NEW JOURNALS.

WE have received the first fasciculus of a new publication entitled "Archivio Italiano di Otologia, Rhinologia, e Laringologia," which is under the direction of Profs. Gradenigo, of Turin, and E. de Rossi, of Rome, with the collaboration of several well-known Italian specialists.

We congratulate the editors upon having produced a first number of great interest and of a high scientific standard of excellence.

We have also received the first number of a new French journal entitled "Archives d'Electricité Médicale Experimenterales et Cliniques," published under the direction of Dr. Bergonié, of Bordeaux, assisted by an editorial committee of French electro-therapeutists. This first number contains some interesting papers, of which a couple relate to applications of electricity to Rhinology.

NEW INSTRUMENTS, THERAPEUTICS, AND DIPHTHERIA.

Wright & Co. (London.)—*Ear Syringe.* “Brit. Med. Journ.” Dec. 17, 1892.

A BALLOON syringe with a nozzle, having in addition an outlet for return liquid. [The outlet may become blocked at any moment by pieces of cerumen or débris, and therefore the syringe becomes a source of danger when used by patients themselves.] *Wm. Robertson.*

Brandeger, W. P. — *A Combined Post-Nasal Spray and Palate Retractor.* “Med. Rec.” Nov. 12, 1892.

In this instrument a palate retractor and post-nasal spray are combined. The operator's left hand is used to hold down the patient's tongue with a depressor, while the right hand is employed to introduce the retractor behind the velum, to drag it forward and to manipulate the *cut off* of the spray-producer. The advantages claimed are: (1) the operator does not have to depend upon the patient holding down his own tongue: (2) the velum is drawn forward and cannot contract upon the posterior pharyngeal wall: (3) the spray is turned on at the same time as the velum is drawn forward, and so has a free opening to reach the vault of the pharynx; (4) the patient's discomfort is reduced to a minimum.

W. Milligan.

Bloebaum. — *A Substitute for the Nasal Douche.* “Med. Rec.” Nov. 12, 1892.

THE author twists a long and thin roll of cotton on to a knitting needle, introduces it into the nose, withdraws the needle, and thus leaves the cotton in the nasal cavity. A second and third plug are introduced in the same way until the entire cavity is filled. In the course of a quarter of an hour the nasal mucous membrane begins to secrete freely, and if the cotton be now removed it will be found to be saturated with secretion, and with the crusts lying in its meshes. A nicely cleansed surface is thus left for the application of salves or powders. Watery solutions are entirely discarded.

W. Milligan.

Valentin.—*Zwaardemaker's Olfactometer.* Medicinisch Pharmaceutischer Bezirksverein Bern, Meeting, June 7, 1892.

THE author showed the instrument, and recommended it as serviceable for the examination of the sense of smell. He had been able to discover with it unilateral anosmia in some cases.

Prof. KRONECKER did not believe that the instrument was of great value. *Michael.*

Winckler (Bremen).—*A Slight Modification of the Usual Laryngeal and Nasal Mirror.* “Therapeut. Monats.,” Nov., 1892.

THE style of the mirror may be divided into two parts. *Michael.*

Schulze (Königsberg).—*Further Contributions to the Knowledge of the Therapeutics of Sodium Cantharidinate.* “Münchener Med. Woch.,” 1892, No. 48.

THE author has applied the method in Gerber's clinic in twenty-one cases of laryngeal, pharyngeal, nasal and pulmonary phthisis and lupus, with the result that the therapeutic effects have been very unsavourable, and the application very painful. Irritation of the kidneys, proved by the presence of albumen in the urine, occurred in seven cases. The author, therefore, no longer applies the method. *Michael.*

Healner.—*On Diphtheria.* Med. Gesellsch. in Leipzig, Aug., 1892.

A REPORT upon the bacteriological diagnosis of the disease and description of his own bacteriological methods. *Michael.*

Hoppe-Seyler.—*Contribution to the Knowledge of Diphtheria.* “Deutsche Archiv für Klin. Med.,” Band 49, Heft 6.

A REPORT upon 455 cases of diphtheria observed in Kiel in the clinic of Gruncke during the years 1889 and 1890. A careful statistical communication is given. Nearly half of the cases died. The treatment consisted in sublimate spray and chloral spray, and internal application of turpentine, cognac, and wine. Tracheotomy was performed in 213 cases, with about 33 per cent. of cures. In 26 cases of death after tracheotomy, bronchial croup was found to be the cause, in the others, paralysis of the heart. In some doubtful cases the diagnosis was confirmed by the presence of Loeffler's bacilli. *Michael.*

Editorial.—*On the Spread of Diphtheria.* “Brit. Med. Journ.,” Nov. 19, 1892.

DIPHTHERIA claims from 5000 to 6000 deaths in England and Wales, *i.e.*, twice as many now as twenty years ago. Faulty drainage no longer holds its ground as a cause, for *pari passu* with improved sanitation the mortality from diphtheria has increased, more especially in large towns where, owing to these improvements, general mortality had agreeably diminished. It is granted that general sanitary defects may prepare a condition of the fauces favourable to a diphtheritic attack, but that the true source of diphtheritic contagion may be assigned to the lower animals principally, as shown by Mr. W. H. Power and Dr. Klein a kindred

infectious disease amongst milch cows. Once thus started the "school influence" means of diffusion comes into action, school-life in all its phases especially favouring its dissemination, in a mild form it may be at first, but subsequently becoming intensified. Diphtheria is intensely infective from person to person, the ages from three years to twelve years being especially liable in this way; and mild cases often in their sequelæ become alarmingly dangerous, and quite often instigate in others malignant types of the malady. Such are the prominent and at the same time not easily preventible causes of the disease.

Wm. Robertson.

Editor.—*On the Spread of Diphtheria.* “Brit. Med. Journ.,” Dec. 10, 1892.

THAT diphtheria is on the increase in spite of advancing sanitation, stamps it as a formidable disease. It is infectious, and therefore demands isolation to be kept up at least for a week after throat mischief has disappeared. Isolation in hospital has its drawbacks. Forty per cent. die, and aggregation of cases intensifies the disease and leads to aerial infection. Prompt notification is to be enforced, and restriction of school attendances insisted upon.

Wm. Robertson,

Koplik.—*Forms of True Diphtheria which simulate Simple Catarrhal Angina.*
The so-called Diphtheritic Angina sine Membrana. “New York Med. Journ.,” Aug. 27, 1892.

AFTER an able review of the opinions of the classical writers on this disease, the author proceeds to tell us his experience of a number of cases in which the clinical features of the disease were not typical, the membrane in the throat was not present in rare cases, and was little developed in others. In every instance a small piece of mucus or membrane was removed from the tonsil with a sterilized wire, and carried over the surface of some tubes of Loeffler blood serum. These were placed in the thermostat. After twenty-four hours other serum tubes were prepared from these. Thus a vigorous mixed growth was obtained; from this the first dilutions were made, and single colonies upon serum tubes obtained. Loeffler's bacillus, the streptococcus, and Hofmann's pseudo-bacillus were all separated from each other, and the pathogenic character of the first demonstrated.

Clinically the cases may be divided into three groups: one with no membrane; a second springing directly from the first, still with no membrane (these cases may end in recovery); and a third infected by the second, with membrane, and proving to be much more virulent. The author says that when follicular tonsillitis is present, diphtheria of a virulent kind may co-exist. We must, therefore, regard all specks isolated upon the tonsil, whether accompanied by follicular appearances or not, as suspicious and likely to prove diphtheritic.

Several cases are quoted in support of this opinion, and bacterioscopic examination proved the presence of Loeffler's bacillus, and experimental inoculation proved fatal.

Some cases of so-called “ulcerative sore throat” are undoubtedly diphtheria; also some cases which simulate plugs in the lacunæ of the tonsils are truly diphtheritic and contain the bacillus.

Treating of the relation of Hofmann's pseudo-bacillus to Loeffler's bacillus, we are reminded that these often grow side by side, and in some old serum cultures the former may gradually completely supersede the latter, and thus become innocuous. Clinically, as regards the croupy cough and voice, the stridulous breathing and the enlarged glands at the angle of the jaw are all symptoms, in addition to the throat appearances that serve to confuse the non-diphtheritic disease caused by this bacillus and true diphtheria. The author says, "Clinically it is impossible from simple inspection to sift the cases of non-characteristic true diphtheria from other forms of non-diphtheritic angina. In bacteriological examination, accompanied by the subsequent animal tests, lies the only true diagnosis."

B. J. Baron.

Thomsen, A. (Copenhagen).—*Three hundred and sixty-seven Cases of Diphtheria treated in the Copenhagen County Hospital.* "Hospitals-Tidende," 1892, s. 393.

DURING the years 1890-91 three hundred and sixty-seven cases of diphtheria were treated, the mortality being only 12·5 per cent. Sixty-four patients were under five years of age; half of the deaths occurred during this period of age. In sixty-six cases the mucous membrane of the nose was attacked: in ten, the Eustachian tube; and in forty-three, the larynx. Swelling of the glands was observed in one hundred and sixty-nine cases; albuminuria appeared in twenty-one per cent. of the cases. The treatment was principally symptomatic. *Holger Mygind.*

Ahreson.—*Immunity against Diphtheria.* Berliner Medicinische Gesellschaft Meeting, Dec. 21, 1892.

DEMONSTRATION of guinea pigs rendered immune by treatment with serum.

BAGINSKY related a case of the combination of *Tetanus and Diphtheria.*

The child, five years old, exhibited tetanic symptoms, and some days later, diphtheria. The tetanus was treated by Behring's serum, and cure followed.

HENOCH had never seen this combination.

VIRCHOW showed the larynx of a patient who died suddenly from *Laryngeal Edema*, caused by muscular degeneration of the heart.

Michael.

Horing (Stuttgart).—*Treatment of Diphtheria.* "Memorabilien," 1892, No. 6. RECOMMENDATION of local treatment with methyl-violet. Michael.

Zaeniche (Gocrlitz).—*Application of Methyl-violet in Diphtheria.* "Therap. Monats.," 1892, No. 7.

THE author has applied the medicament in some cases, and is pleased with his results.

Michael.

Habs (Magdeburg).—*Tracheotomies in Diphtheria.* "Deutsche Zeit. für Chir.," Band 33, Heft 6.

IN the clinic of Hagedorn during six years 572 tracheotomies have been performed for diphtheria. Of these cases 316 = 53 $\frac{1}{4}$ per cent. died, and

256 = 44 $\frac{3}{4}$ per cent. have been cured. In nearly all cases inferior tracheotomy was performed.

Michael.

Foltanek.—*Hæmorrhages in Tracheotomy performed for Diphtheria.* “Jahr. für Kinderheilk.,” Band 32, Heft 3.

MOST dangerous hæmorrhages in tracheotomies performed for diphtheria are not caused by decubitus of the canula, but by complications. The author describes (1) extra-tracheal bleedings, in one case from a branch of the vena thyroidea inferior, in a second from the vessel itself, and a third case was cured; bleedings caused by erosion of the vessels by ulcerative processes in the wound were observed in five cases from the arteria anonyma, in one from the arteria thyroidea, and in two from the arteria thyroidea inferior; in two cases the vessel could not be found. (2) Intra-tracheal bleedings from decubitus of the canula in seven cases from the arteria anonyma, two from ulceration of the tracheal mucous membrana.

Michael.

Sziklay.—*On the Treatment of Croup.* Wanderversammlung ungarischer Ärzte und Naturforscher zu Kronstadt. Meeting, Aug. 22 to 25, 1892.

THE author recommends the subcutaneous injection of pilocarpin. In the discussion Gombos, Jordan, and Eross do not agree with the author in his recommendation of pilocarpin.

Michael.

Forum-Jensen (Denmark).—*Forty-four Cases of Croup.* “Ugeskrift for Laeger,” 1892, s. 303.

OF these the stenosis demanded tracheotomy in forty-three cases, with only twelve deaths, two being under one year of age; both died. In one case the tube could not be removed before intubation was performed. The diphtheritic epidemic in question was of a mild character.

Holger Mygind.

Ritter (Berlin).—*Etiology of Whooping Cough.* “Berliner Klin. Woch.,” 1892, No. 50.

THE author describes a micro-organism in the sputum of patients suffering from whooping cough. It is a very small coccus, which the author could not find elsewhere. He believes that it is the pathogenic micro-organism of the disease.

Michael.

MOUTH, TONGUE, PHARYNX, ETC.

Delavan, Bryson.—*The Influence of certain Diathetic Conditions upon the Prognosis in Operations upon the Throat.* “New York Med. Journ.,” Nov. 19, 1892.

1. Exophthalmic goitre. There is no especial risk in operating on the tonsils or adenoids in this diathesis.
2. Lymphadenoma. No especial difficulty here.

3. Rheumatic subjects. Operation unattended with much risk and most beneficial.

4. Strumous diathesis. Recovery may be somewhat delayed, the bleeding may be more pronounced and the various reactions possible under such circumstances may be somewhat more active than usual. There is more difficulty in thorough removal and the fragments left behind in the faecal or naso-pharyngeal region are more likely to increase and need another operation.

5. Hæmophilia. Several deaths from hæmorrhage, especially in operations for adenoids have been recorded, and the throat does not present a field for surgical procedures that is less dangerous to meddle with and less liable to bleed fatally than any other part of the body in these patients. The knife, then, being clearly inadmissible, is the galvano-cautery a perfect hæmostatic? The author properly reminds us that a slight hemorrhage is liable to occur in *non-bleeders* after the most skilful application of it, and even if we escape the danger of primary bleeding we cannot be certain of doing so later on when the eschar separates.

We are clearly on the horns of a dilemma. Will the administration of salts of chloride of calcium to hæmophiliacs cure the condition as suggested by Watkins ("New York Med. Journ.", Aug. 13, 1892)?

B. J. Baron.

Hille, U. (Norway).—*Three Cases of Rumination in Man.* "Norsk Magazin for Laegevidenskaben," 1892, No. 1.

(1) A WOMAN, aged forty-five, father and one brother epileptic, the patient herself healthy, began to ruminate when twenty-eight years of age, and attributes this abnormality to the circumstance that she since then has had very little time for her meals, and generally has been obliged to sit down in a stooping position to do her work directly after having eaten; the rumination generally begins shortly after her meals, and is not unpleasant to her, except when she brings up the food several hours after her meals. (2) A man, aged twenty-one, whose father is mentioned (case 3), has ruminated as far back as he can remember, a portion of the food only being brought up a few minutes up to several hours after his meals without any unpleasant sensation; except suffering from dyspepsia, he is otherwise healthy. (3) The father of the former patient, aged fifty-three, has ruminated since thirty years of age. There are no hereditary diseases in his family, except that several members suffer from severe dyspeptic symptoms, as he also does himself. The rumination begins fifteen minutes to one hour after his meals, and generally consists only of a portion of the food, and is especially the case when the patient works in a stooping position; he sometimes ruminates in the evening food he has taken in the morning.

Holger Mygind.

Collins, Joseph (New York).—*Angio-Neurotic Oedema.* "Internat. Journ. of the Med. Sciences," Dec. 1892.

THIS disease, which is characterized by local swelling in various parts of the body (among others the throat), associated with intestinal disturbances and a hereditary proclivity, is carefully and critically reviewed

in a lengthy article by the author. While the directly exciting causes seem to be cold and traumatism, early adult life and the female sex furnish most of the cases. As to the area of distribution of the swellings, out of seventy-one cases twenty-nine occurred in the face, twenty-two in the extremities, and five in the larynx, &c. Its migration, however, is quite characteristic—*e.g.*, it would appear on the face, and in a few hours in the larynx. The swelling, which may appear quite suddenly, does not pit on pressure, generally reaches its height in a few hours, and is of a pale waxy tint. The mucous surface most often affected is that of the larynx and stomach. Osler reports two deaths from its sudden appearance in the larynx, while others report dysphagia from its occurrence in the pharynx. The relationship of this disease to giant urticaria, erythema nodosum, and a variety of purpura is noted. As a rule it is rarely fatal, and then only when it attacks the larynx. As to the pathology of the disease, it seems to be intimately connected with lesion of the peripheral nervous system, not necessarily limited to the sympathetic system. The œdema is non-inflammatory, is painless, and has its seat in the connective tissue by the derma. *Wm. Robertson.*

Ritter (Berlin).—*Syphilitic Affections of the Mouth, and Infections of Syphilis by Operations upon the Mouth and Teeth.* “Monats. für Zahnheilk.” 1892, No. 2 and 3.

A REVIEW of the subject.

Michael.

Wingrave, V. H. W. (London).—*Ulcer of Tongue.* “Brit. Med. Journ.,” Dec. 24, 1892.

SHARPLY defined ulcer of the tip of the tongue in a man aged fifty. Edges elevated, but surrounding tissue only slightly indurated. Duration ten years. Probably tubercular, antisyphilitic remedies being of no avail. No lung infection. Lately loss of flesh and diarrhoea.

Wm. Robertson.

Scheppegrrell, W. — *Hypertrophy of the Lingual Tonsil.* “Med. News;” Oct. 29, 1892.

THE symptoms complained of in cases of hypertrophy of the lingual tonsil are the following: A feeling of foreign body in the throat which the patient tries to swallow, a feeling of something “sticking” in the throat, a sense of suffocation, difficulty in swallowing, a feeling as if a ball were rising in the throat (*globus hystericus*), palpitation and other reflex nervous symptoms. Of fifteen cases examined by the author five were in males and ten in females. The ages ranged from nineteen years to fifty-one years. Between nineteen and thirty years there were ten cases, between thirty and forty years one case, and between forty and fifty years four cases. In seven of the cases the symptoms were entirely due to a hypertrophied lingual tonsil. Of the remaining cases the hypertrophy of the lingual tonsil was associated with hypertrophy of the faucial tonsil in one case, with hypertrophy of the uvula in two cases, with hypertrophy of the pharyngeal tonsil in two cases, with pharyngitis in one case, with hypertrophic rhinitis in two cases, with atrophic rhinitis in one case, and with otitis media in three cases. The best

treatment consists in thorough cauterization of the hypertrophied portion with the galvano-cautery. For a few days subsequent to the operation the patient should take bland and unirritating food. *W. Milligan.*

Kuhn (Strasburg).—*Adhesion of the Soft Palate and Pharyngeal Wall.*
Verhandlungen des Deutschen Otologischen Gesellschaft, Frankfort-a-Main,
Meeting, April 16, 1892.

THE author exhibited a young girl aged sixteen with this condition. He made an opening through the palate by the thermo-cautery and applied a gum drainage tube to prevent the opening from closing. He also showed a rhinolith with a nucleus consisting of a cherry-stone.

ROHRER showed a rhinolith and two syaloliths.

Endriss (Golppingen).—*Observations on the Physiological and Pathological Relations of the Upper Air Passages to the Genital Organs.* “Die bisherigen Beobachtungen von Physiologischen und Pathologische Beziehungen des Ober Luftwege zu den Sexualorganen.” Inaugural Dissertation, Wurzburg, 1892.

THE author referring the vicarious menstrual haemorrhages of the mouth and the trigeminal neuralgias to the period of menstruation, reviews the vicarious and prodromal sialorrhœa, ptyalismus gravidarum, and the relation between the tonsils and the genital organs, the vicarious haemorrhage of the nasal cavity, nervous cough, and abnormal functions of the cerebral nerves, and the relation of the larynx to the sexual organs. Numerous histories of patients illustrate the theoretical part of the work. *Michael.*

Sedziak (Warsaw).—*Unusual Case of Sarcomata Multiplicia Cutis and Lympho-sarcoma Tonsille Dextra.* “Monats. für Ohrenheilk.” 1892, No. 9.

A PATIENT, forty-eight years old, presented a tumour of the left tonsil of the size of an egg. The right tonsil was also enlarged. There were also multiple tumours of the skin. The author removed the tonsillar tumour through the mouth. One of the tumours of the skin was also extirpated. The microscopical examination showed them to be lympho-sarcoma. Under a course of arsenic the size of all tumours was diminished, and the general condition of the patient was satisfactory. *Michael.*

Radcliffe (Washington).—*Enlarged Tonsils and Tonsillotomy.* “Med. News,” Nov. 12, 1892.

THE purpose of this paper is to show that enlargement of the tonsil occurs in two very different pathological states. One depends on struma or congenital syphilis, where the hypertrophy is one of dilatation, with no tendency to consolidation, and in which very severe haemorrhage may occur when the dilated vessels are cut across in tonsillotomy. This is the class of case that occurs in childhood, and with evident signs of diathetic dyscrasia.

The other is the result of one or more attacks of acute inflammation occurring in a healthy person, and frequently after puberty. Here the tonsil is hypertrophied and indurated; the vessels are not dilated, and haemorrhage is slight. There is no diathetic fault, and tonsillotomy is safe as regards haemorrhage. *B. J. Baron.*

Lange (Dessau). — *Case of Multiple Papillomata of the Tonsil, Tongue and Epiglottis. Contribution to the Knowledge of Multiple Papillomata.* “Deutsches Archiv. für Klin. Medicin,” Band 50, page 213.

A GIRL, seventeen years old, with satisfactory general health, presented a tumour upon the posterior wall of the epiglottis, and a second tumour on the left portion of the base of the tongue, with a third on the left tonsil. Extirpation of all three tumours was followed by cure. The microscopical examination showed the growths to be papillomata. The author gives an extensive description of the histology of the tumours, which must be read in the original. *Michael.*

Heydecker (New York). — *Follicular Tonsillitis—Foreign Body in the Larynx—Tracheotomy—Recovery.* “Archiv. of Pediatrics,” Jan., 1893.

THE patient was a child five and a half years old, with mild follicular tonsillitis, from which he was recovering, when he was noticed to be nearly asphyxiated, and when seen was nearly dead. A scalpel was plunged into the larynx and rapid opening made (without proper instruments being at hand). A few attempts at artificial respiration were made, and breathing returned, and the cyanosis disappeared. The metal cover of the nozzle of a tooth-powder bottle was subsequently found to be resting on the vocal cords, which was removed, the tracheal tube removed, and the wound sown up. The author considers that the case shows how disastrous would have been an attempt to do intubation, and thinks the case a warning never to resort to intubation unless we can exclude the possibility of a foreign body being in the larynx. *R. Norris Wolfenden.*

Salkowsky and Dinochowsky. *Contribution to the Pathology of Inflammatory Tonsillar Processes.* “Deutsche Archiv für Klin. Med.,” Band 49, Heft 5.

CAREFUL pathologico-anatomical researches, which must be read in the original. *Michael.*

McBride (Edinburgh). — *Cysts of Tonsils, Nose, Larynx, and Ear.* “Brit. Med. Journ.,” May 14, 1892.

THE author refers to tonsillar cysts as rare, and to having met with two retention cysts in the tonsils, probably due to a crypt being changed into a closed cavity by inflammatory action. Cysts of the nose are not common. One was seen by the author, who besides refers to a cystic condition producing swelling below one or other ala, and palpable under the upper lip as well as inside corresponding nostril. One such case the extractor has met with. On puncture a clear straw-coloured fluid escapes, the treatment being dissection out of the cyst. Dr. McBride further refers to cysts of the middle turbinateds. Cystic growths in the larynx are described as arising from the epiglottis, ary-epiglottic folds, posterior wall of the larynx, ventricles of Morgagni, and from the vocal cords. The author refers to one he met with near the anterior commissure, the size of a hazel nut, and which was removed by forceps. Cysts in the external auditory canal are of extreme rarity. The author met with one which was found to be attached to the anterior wall of the osseous meatus, where apparently no gland structure exists. *W'm. Robertson.*

Huber.—*A Unique Case of Uvulitis.* “Archiv. of Pediatrics,” Jan., 1893.

THE case was that of a child ten months old. The child was well up to two hours before, since when there was irritating cough every few seconds, and a red mass would show itself between the child's lips, especially after severe coughing. The child could not swallow or suck, and exhaustion was marked. The uvula was found to be elongated, reddened, and oedematous. It was punctured, chlorate of potash and opium were given, and cold applications to the neck and ice pills were ordered. The swelling went down, after which diphtheritic deposit was noticed on the uvula. Tinct fer. chlor. in small and repeated doses, and nasal injections of weak salt solution, cured the child.

The author has met with a second case in a child much older, the cause of which was not made out.

R. Norris Wolfenden,

Küster.—*Primary Tuberous Ulcer of the Pharynx.* Med. Soc. of Gothenburg, March 9, 1892.

DEMONSTRATION of a case in a girl, aged thirteen, without any distinct history of phthisis in the family, and without any detectable disease of the lungs. The microscopical examination could not reveal the existence of tubercle bacilli. No improvement occurred under local treatment lactic acid, chronic acid, but spreading of the ulceration all over the pharynx and the soft palate. Only slight dysphagia was present.¹

Holger Mygind.

Kidd, Percy (London).—*Tuberculous Ulceration of the Pharynx treated by Lactic Acid.* “Brit. Med. Journ.,” Nov. 19, 1892.

IN a woman, aged forty-one, presenting a large cicatrix of the pharynx with some small nodules over the base of the tongue—throat troubles—following symptoms of phthisis last Christmas. Treatment: pure lactic acid, thorough cicatrization taking place. A cure was not claimed, though the patient was vastly improved.

Wm. Robertson.

Sedziak (Warsaw).—*Case of Angina Ulcerosa Benigna.* “Monats. für Ohrenheilk.,” July, 1892.

SEE the paper on the same subject in this Journal, 1892. *Michael.*

Schäffer (Bremen).—*Pharyngitis Acuta Infectiosa Phlegmonosa.* “Monats. für Ohrenheilk.,” 1892, No. 7.

A PATIENT, forty-five years old, was affected with shivering, pain in swallowing, and dyspnœa. The pharynx appeared to be normal. The laryngoscope showed the epiglottis to be thickened and oedematous, resembling erysipelas. The dyspnœa seemed to be caused by the state of the heart, and it was determined not to perform tracheotomy if possible. Scarification of the epiglottis was without effect. Introduction of Schroetter's hard rubber tube had some effect. Some hours later death occurred. The *post-mortem* examination confirmed the diagnosis.

Michael.

¹ The reporter (H. M.) cannot help doubting the tubercular character of this disease, both on account of the circumstances given above and the description of the appearance of the pharynx.

Hovell, T. Mark. — *On Granular Pharyngitis.* “Med. Press and Cir.” Oct. 19, 1892.

THE author remarks upon the frequent presence of granules situated behind the posterior pillars of the fauces. To see these granules the posterior pillars of the fauces must be drawn to one side. Granulations in this region have a tendency to keep up catarrhal conditions of the mucous membrane lining the Eustachian tubes, and their destruction is frequently necessary before a healthy condition of the middle ear can be obtained. The most frequent exciting cause of this condition among males is improper use of the voice. The proximate cause is the strain put upon the pharynx by improper voice production, or by speaking for a lengthened time when the throat is in a catarrhal condition. The general health of the patient is in almost all cases impaired. Dyspepsia, anaemia, derangement of the bowels, uterine complaints, etc., are all important factors in the production of this condition. The author lays great stress upon the importance of attending to the general condition of the patient. By well-directed general treatment the granulations frequently disappear. Where local treatment is required as well, soothing remedies should be used. The galvano-cautery is considered the best instrument for their destruction, but care must be taken not to burn too deeply, otherwise the cicatrices formed bind the mucous membrane to the deeper structures. In such cases attention should always be directed to the condition of the nasal passages. *W. Milligan.*

Brady, A. J. — *Notes on Foreign Bodies in the Pharynx and Larynx, with Cases.* “The Australasian Med. Gaz.” Sept. 1892.

FOREIGN bodies frequently lodge between the pillars of the fauces. In such cases the patient's sensations generally lead him to believe that the body is lying deeper than its actual situation indicates. The vallecula or space between the base of the tongue and the epiglottis is a common site for their lodgment. If the lingual tonsil be enlarged it may be necessary to draw it forward with a curved probe before a satisfactory view of the body can be had. In young children, where the employment of the laryngeal mirror is impracticable, valuable information may be obtained by digital exploration of the part. In cases where the body has lodged in the sinus pyriformis the patient will usually indicate a spot one and a half inches below the angle of the jaw on the affected side as the seat of his abnormal sensations. Foreign bodies in the larynx are generally found located at the level of the vocal cords. Several illustrative cases are recorded. *W. Milligan.*

Conitzer (Hamburg). — *A Hairy Pharyngeal Polypus.* “Deutsche Med. Woch.” 1892, No. 51.

SEE the report of the Aerzte Verein in Hamburg.

Michael.

Hecht (Lohman). — *Foreign Body in the Esophagus.* “Therap. Monats.” 1892, No. 12.

A PIECE of meat, situated in the oesophagus of a woman thirty-eight years old, could neither be extracted by any instrument nor pushed down. The

author was fortunate enough to displace it by external manipulations on the neck of the patient, so that it was passed into the stomach. *Michael.*

Weile (Breslau).—*Foreign Body in the Oesophagus.* “Therap. Monats.,” 1892, No. 12.

TWO pieces of money were swallowed by a boy eight years old; one of them passed without difficulty into the stomach, the other became fixed in the oesophagus. The author tried to extract it, but, as this was impossible, he pushed it down into the oesophagus. The next day both pieces were voided *per vias naturales.* *Michael.*

Eve, Frederic (London).—*Oesophagotomy.* “Brit. Med. Journ.,” Oct. 22, 1892.

IN a case of cicatricial stricture of the oesophagus in a girl aged seventeen, who swallowed some nitric acid twenty months before. At intervals bougies were used. When on one occasion a Symonds tube was being abstracted the thread came away, leaving the tube in the stricture. The incision was made low down, but even then the oesophagus had to be drawn up before the tube could be reached, which action also rendered it possible to incise the stricture in the oesophagus (with scissors). The gullet wound was closed with sutures. Two years after, the girl was examined and her oesophagus found capable of passing a No. 18 bougie. The slight tendency of the oesophagus to recontraction was pointed out, as well as its extensive mobility in its long axis. This is the only case in which a stricture of the oesophagus had been divided and thereby cured.

Wm. Robertson.

NOSE AND NASO-PHARYNX.

Bergh, R. M. (Norway).—*Three Cases of Monolateral Parotitis after Influenza.* “Norsk Magazin for Laegevidenskaben,” 1892, No. 19.

IN all three patients (two men and a woman) the left parotid became swollen, with signs of an acute inflammation, which necessitated an incision in one case, only very little pus, however, appearing.

Holger Mygind.

Lane, Arbuthnot (London).—*Alveolar Abscess — Pyæmia — Excision of Thrombosed Veins—Death.* “Lancet,” Nov. 5, 1892.

RECURRING rigors and jaundice followed the opening and scraping of an alveolar abscess. The external jugular and tributaries were dissected out, tied, and excised. The *post-mortem* examination showed that all the septically thrombosed portions had been removed, but abscesses had previously formed in the lungs and liver. Mr. Lane places this operation on a par with that of ligature of the jugular in otitic pyæmia.

Dundas Grant.

Hajek (Wien).—*Laryngo-Rhinological Communication (Continuation). On Empyema of the Accessory Cavities.* “Internat. Klin. Rundschau,” Nos. 44, 45, 47, and 51.

IN all cases of inflammation of the accessory cavities the secretion of the nose is increased. The examination by introduction of the probe into the antrum of Highmore is of great advantage, but the probe cannot be introduced into every cavity, as some authors say. It is not correct, either, as some other authors say, that the probe can only be introduced in rare cases. By irrigation through the natural opening alone the empyema cannot be cured, but it may be sufficient for diagnosis. Transillumination is not of great value. The alveolus often has an inclination to close, or the canulas introduced fall out; the author has therefore invented a new instrument for trephining and a canula which cannot fall out. He relates some cases of empyema of the sphenoid sinus treated by irrigation of the cavity and scraping. In some cases empyemata of both cavities are combined.

Michael.

Cholewa (Berlin).—*Introduction of a Probe into the Frontal Sinus.* “Monats. für Ohrenheilk.” 1892, Nos. 8 and 9.

POLEMICAL article concerning some anatomical points in the papers of Katzenstein, Zuckerkandl, and Hausberg.

Michael.

Rankin, D. N.—*Diseases of the Frontal Sinus.* “New York Med. Journ.” Nov. 19, 1892.

IN the infant at birth there is no trace of the frontal sinuses. They begin to make their appearance between the second and third years, when they are merely enlarged cells in the diploe. They are not fully developed until puberty. The left sinus is usually the larger of the two, and the sinuses are as a rule larger in males. Their development is due to a receding of the inner from the outer table of the skull. The absence of bumps, therefore, even in middle age, does not necessarily indicate the absence of the sinuses. Their lining membrane is continuous with the pituitary mucous membrane, but differs from it in being denser in structure, paler in colour, smoother and more highly polished. The most important affections of the sinuses are inflammations simple and specific, foreign bodies, polypi, concretions, exostoses, hydatids, and malignant tumours.

W. Milligan.

Winckler (Bremen).—*Empyema Sinus Frontalis.* “Münchener Med. Woch.” 1892, Nos. 47 and 48.

THE author describes the symptoms of the disease, the difficulties of diagnosis, and its methods—e.g., illumination, rhinoscopy, and examination by the probe. Concerning the introduction of the probe, he has found that it is not so easy as many authors believe, because the entrance to the frontal sinus varies greatly in length and relation to the circumference. Experiments upon cadavers show that it is sometimes nearly impossible to find it. A cure of an empyema of the frontal sinus by irrigation *per vias naturales* is nearly impossible. The author, therefore, recommends the perforation of the anterior wall of the sinus, as described by Schäffer, and he then uses insufflations of iodoform. The inflation of air by the

method of Politzer he does not apply. Of sixty-two patients treated by Schäffer's method, forty have been cured.

Michael.

Schwartz (Gleinitz).—*Contribution to the Study of Diseases of the Antrum of Highmore.* “Monats. für Ohrenheilk.” 1892, Nos. 9 and 10.

FIVE cases are minutely reported. The author concludes that the presence of pus is of great interest, but, if it cannot be found, the puncture of the antrum is indicated if the anamnesis and the subjective symptoms lead to the belief that there is empyema of the cavity.

Michael.

Mackenzie, Hunter (Edinburgh).—*A Case of Empyema of the Antrum of Highmore with Ozenna.* “Brit. Med. Journ.” April 9, 1892.

THAT of a woman, aged twenty-three, with discharge of free pus from the right nostril, which also contained crust formation, with usual odour. The antrum of same side was found affected, and opened by an alveolar puncture and drained. This procedure cured the intra-nasal discharge of free pus, while Dr. Mackenzie treated the ozænous condition by canthos cotton, an institution of his own. The author, in his remarks, refers to the rarity of the above coincidence, and eulogizes the efficacy of the continuous irritation provoked by the cantharides on the ozænous process.

Wm. Robertson.

Stephens (Sydney, Iowa).—*Two Typical Cases of Epistaxis treated by the Umbrella Fashion.* “The Times and Register,” Nov. 26, 1892.

THIS “fashion” consists in pushing a piece of rag through the nostril to the pharynx so that it forms a pouch; this is then tightly packed with carbolic wool and the ends of the rag secured: and it is very successful.

B. J. Baron.

Onodi (Pesth).—*A Case of Mixed Nasal Polypus.* “Pesther Med. Presse,” 1892, No. 21.

THE author relates (1) a case of mucous polypus, followed by sarcomatous tumours, (2) a case of rhinitis hypertrophica posterior, (3) a case of apsithyria, (4) primary scirrhus of the right tonsil, (5) primary medullary carcinoma of the antrum of Highmore.

Michael.

Zarniko.—*Histology of Nasal Tumours.* “Virchow’s Archiv,” Band 128.

DESCRIPTION of a tumour removed through the nose. It was oedematous. In forty-nine cases of benign tumours of the nose the author found bony masses in seven, which were a continuation of the turbinated into the tumour, and which must be regarded as exostoses.

Michael.

Wygodsinsky (Waldeburg).—*Sarcomata of the Nasal Cavity.* Inaugural Dissertation, Wurzburg, 1892.

A DESCRIPTION of three cases from B. Baginsky’s clinic.

Michael.

Clarke, J. Jackson (London).—*Epithelioma of the Septum of the Nose, showing the presence of Psorosperms.*

THE appearances are regarded as due to psorospermia by the author, who holds that these bodies are the cause of carcinoma. The author’s

remarks are illustrated. The subject of the paper took the form of a discussion in which Messrs. Shattock and Galloway took part. In this connection the recent papers by Drs. Metschnikoff and Coats aid greatly in arriving at a true knowledge of the present state of opinion on the subject of the microbic origin of cancer. The former refers to Cohnheim's theory of tumours as only seemingly applicable in vertebrates and never in lower animal forms (*crustacea, etc.*), where, although the individual possesses an ecto and entoderm, nothing resembling epithelial tumours has been noticed. In such, tumours are always parasitic in origin, no fragments of embryonic folds are detached and transformed into neoplasms. Metschnikoff therefore asks may not neoplasms, and especially malignant tumours, have also a parasitic origin in man and the higher animals? The absence of contagion does not hold as negativing the possibility, as, e.g., miasmatic diseases, although not contagious, are due to microbic parasitism. Metschnikoff then gives an account of "coccidiosis" in rabbits as introductory to the main question. This is an infectious parasitic disease in the rabbit, not contagious, and therefore accompanied by true tumours, miasmatic in origin, the oval coccidia undergoing some at present little understood transformation outside the body before being capable of inducing the disease in others. The coccidia divides into four cells, and is transformed into four spores acting the part of miasma, provided with a resistant external covering. Each spore encloses two falciform embryos which give the disease to others.

In rabbits the epithelial cells of the intestines and of the biliary ducts become the seat of the spores, where they grow and become oval parasites representing the mature state. Auto-infection (Pfeiffer) is propagated by the round bodies of the young coccidia dividing into a large number of segments. Metschnikoff proceeds by noting the miasmatic (endemic) character of cancer, and also the fact (?) of the exaggerated proliferation of the epithelial cells of the affected organ. Citing Soudakewitch, Ruffer, and Walker (the two latter having shown a series from the round bodies up to oval forms in the cancer cell), his remarks are illustrated by diagrams of bodies lodged in cancer cells which often contain more than one parasite. Coccidia in the rabbit does not produce true metastasis, nor do some cancers always where there are but a limited number of stages—an adverse point to the theory. Falciform bodies are said to have been discovered by Soudakewitch in cancer cells. Then coccidiosis of rabbits is non-contagious as cancer in man is non-inoculable, nor is malaria. Returning to Mr. Clarke's remarks on his case of epithelioma of the septum nasi, we find reference made to his finding large cells filled with amoeboid psorosperms which were set free by rupture of the mother cell. These then penetrate not only between the epithelial cells, but also into the connective tissue spaces, where they cause irritation. Others penetrate the epithelial cells. At both sites they divide and are propagated, etc. Mr. Shattock, although admitting the histological appearances, required the fulfilment of Koch's postulates—viz., that the microzoon be cultivated outside the body, and from the culture the disease to be produced. He referred to the fact that a true encapsulated form had not been observed in cancer, and that but part of the cycle transpired outside

the body. In scirrhus of the breast the cell appearances mentioned by Clarke were real.

Mr. Galloway noticed that Mr. Clarke had not described any falciform stages.

In an admirable paper, in which philosophic doubt of the microbic origin of cancer is finely put, he first refers to the general pathology of tumours, more especially to Cohnheim's theory, to solve the problem, which, however, is not applicable to cancer where the normal tissue takes on a peculiar and independent mode of growth—there is a definite tissue growth, not a tissue that arises as the result of mere irritation as in tubercle and syphilis, where the tissue is of a rudimentary kind and mostly of connective tissue structure. In cancer there is a new formation of epithelium and also a formation of connective tissue blood-vessels and lymphatics—in fact a cancerous tissue, grafts from which retain the stamp of the parent on them, crushing aside the elements of the organ in which they become implanted. Then there are the varieties of structure in cancer, differences in growth and in malignancy, all standing in need of explanation from the parasitic point of view. Cancer in its primary seat does not scatter, it extends. Such characters make it difficult to suppose one infective agent for all—at least it must be one of a nature different from any yet known. Dr. Coats now asks if a tissue growth can be produced by a parasitic agency? To this it is replied that it is not communicable or derived from some poison outside the body. The occurrence of coccidia in molluscum is dwelt upon, and the parasite, which belongs to the animal kingdom, is asserted to arise within the epithelial cells. When the author comes to deal with the appearances in cancer cells, which Virchow observed long ago, these are recognized, but as to the proof that they are parasites—this has yet to be produced. Vegetable parasites cannot produce such tissue growth as in cancer, but it is possible that minute animal organisms may. Then the questions come: are we to suppose a separate parasite for each variety of cancer? one parasite for each organ, and one for each period of life?

Wm. Robertson.

Bellows (Boston).—*A Case of Nasal Angioma.* “Journal of Ophthal. and Laryngol.” Oct., 1892.

THE tumour was situated on the septum in a woman aged thirty-seven years. Its colour was purple, and it was the size of a chestnut. Bleeding was very easily induced on touching it with a probe. It was removed with Jarvis's écraseur. In three weeks it recurred, and was then painted twice daily with a saturated solution of bichromate of potash, and it gradually disappeared, and no recurrence had taken place five months later. Microscopically it was a cavernous angioma.

B. J. Baron.

Sota.—*Dermatalgia of Nasal Origin.* “Rev. Mens. de Laryngol.” Oct. 15, 1892; “Med. Bull.” Dec., 1892.

PROF. RAMON DE LA SOTA Y LASTRA reports his own case in the “Revista de Laringología.” During last November he was attacked by a severe coryza of the left nasal fossa. The inflammation soon involved the entire mucous membrane, spread to the lachrymal duct, and excited a

phlyctenoid erysipelas of the skin of the nose and the eyelids. This condition was accompanied by a very painful supra-orbital neuralgia, and the left side of the head, over an area of six square centimètres (about two and a half square inches), became the seat of a dermatalgia so excruciating that the least touch provoked a cry of pain. The slightest contact of the hair increased the suffering. Beyond this area the skin was free from painful sensibility. This dermatalgia was greatly allayed by the introduction into the nasal fossa of a pledge of cotton moistened with a ten per cent. cocaine solution. When the coryza and erysipelas began to disappear, the fever, general symptoms, and supra-orbital neuralgia also abated, but the pain in the hairy scalp persisted for a considerable time, and only ceased when the Schneiderian membrane returned to a normal state.

The appearance of the dermatalgia consecutive to a coryza, the influence exercised upon the former by the application of cocaine, and its retrocession after the cure of the nasal affection, clearly demonstrate the reflex nature of the affection. There could be no question of the propagation of an inflammation, since a healthy region intervened between the painful area and eyebrow.

R. Norris Wolfenden.

Gerber (Königsberg).—*Contribution to the Knowledge of Rhinolithi.* “Deutsche Med. Woch.,” 1892, No. 52.

THE author removed a rhinolith from a boy seven years old. The stone was extracted under narcosis after having been broken by forceps. The examination showed that the centre consisted of cotton wool. The microscopical examination showed that the stony mass was produced by calcification of micro-organisms.

Michael.

Zuckerkandl.—*The Concha Ethmoidales of Men.* “Anat. Anzeiger,” 1892. EMBRYOLOGICAL researches by the author lead to the result that the ethmoidal bone is formed of three conchæ.

Michael.

Otto (Dorpat).—*On the Perforating Ulcer of the Cartilaginous Septum.* “Petersburger Med. Woch.,” 1892, No. 46.

A REVIEW of the subject.

Michael.

Ziem (Danzig).—*Tornwaldt's Disease and Palpation of the Naso-Pharynx.* “Therap. Monats.,” 1892, No. 12.

POLEMICAL article.

Michael.

Dabney.—*Myxoma of the Nose and Fibro-Myxoma of the Naso-Pharynx.* “The American Practitioner and News,” Oct. 22, 1892.

THE pathology of this condition is treated by the author, who is not a believer in “necrosing ethmoiditis” as a cause of nasal polypi. As regards the operation for removal, this should be done with a good light, and the nose must be cocainized; after removal of the polypus, either the edge of the middle turbinated bone is removed with the “reel snare,” or if the edge of the bone cannot be caught in this way, the rongeur forceps are used. Strict antiseptic precautions are carried out when the middle turbinated bone is interfered with, and Seiler’s tablets or a solution of

perchloride of mercury is used. Cauterization by means of galvano-cautery or chromic acid and sprays of hazeline or alcohol complete the cure. In the case of fibro-myxoma attacked posteriorly, Jarvis's snare or the electro-cautery passed through the nose, or if it cannot be seized from the front, pulling it down into the mouth, and applying forceps to it from the mouth, enables us to remove it.

B. J. Baron.

Editors of the "New York Medical Journal."—*Adenoid Growths of the Pharynx in Children.* Nov. 26, 1892.

At a meeting of the section of Pediatrics held in New York on November 10th, Dr. Bosworth discussed the symptoms and treatment of naso-pharyngeal adenoids. He urged that the trouble should be looked upon as a general disease with marked local manifestations. Over sixty per cent. of all nasal catarrh in children is due to the presence of these growths. The most important symptoms are interference with the respiration and impairment of hearing by occlusion of the Eustachian tubes. The child's appearance is characteristic. The mouth is kept partially open, the bridge of the nose is broadened, and the character of the voice is "dead." A simple and effective method of demonstrating the presence of adenoids is by means of the vaseline spray. When introduced into a healthy nostril a cloud immediately issues from the other passage; if, however, the pharynx be occluded by vegetations the spray does not return. The condition is but a step removed from scrofula, and is marked by a tendency to hyperplasia of adenoid tissues. If the tonsils be much enlarged adenoids are almost sure to be present. In the management of such cases not only must local treatment be adopted, but constitutional remedies must likewise be used. A preparation specially indicated is the syrup of the iodide of iron. Bosworth considers the curette a better instrument for the removal of such growths than the forceps, but has obtained the best results from the use of a snare.

W. Milligan.

LARYNX, &c.

Uchermann.—*A Case of Laryngitis Sicca.* Med. Soc. of Christiania, Jan. 27, 1892.

At the meeting of the above-mentioned society the author mentioned a case under his treatment. The patient, a young girl aged seventeen, whose mother and sister died of phthisis, exhibited intermittent attacks of suffocation caused by the formation of large hard crusts in the hypoglottic region of the larynx. There was atrophic rhinitis present, but no pharyngitis sicca. The larynx improved by degrees under treatment with iron and painting of the hypoglottic region with iodine-glycerine. At the same meeting, Uchermann also demonstrated a cholesteatomatous growth removed from the mastoid process of a young girl.

Holger Mygind.

Heymann. — *Idiopathic Perichondritis.* Berliner Medicinische Gesellschaft. Meeting, Dec. 7, 1892.

THE patient exhibited showed an affection of the arytenoid cartilages. **BAGINSKY** believed the case to be a primary erysipelas of the larynx.
Michael.

Burger (Amsterdam).—*Laryngoscopical Appearances in Traumatic Neuroses.* “Berliner Klin. Woch.,” 1892, No. 47.

CONTRARY to Holz, the author does not believe that the results of laryngoscopy can have any value in the diagnosis of traumatic neuroses.
Michael.

Avellis (Frankfurt-a-M.)—*Remarks on Acute Primary Laryngeal Edema, with Special Reference to Iodide Edema.* “Wiener Med. Woch.,” 1892, Nos. 46 to 48.

REPORT upon the literature, with a communication of some cases.

Michael.

Onodi (Buda-Pesth).—*The Movements of the Vocal Cords after Cutting the Vagus Nerve.* “Monats. für Ohrenheilk.,” 1892, No. 9.

AFTER cutting the nervi vagi, laryngei inferiores and their sympathetic communications, movements of the vocal cords arise caused by the function of the crico-thyroid muscles.
Michael.

Smith (Dhalmsala).—*Laryngeal Paralysis—a Sequel of Measles.* “Brit. Med. Journ.,” Nov. 19, 1892.

DURING a mild epidemic of measles three cases presented the above feature as a sequel, setting in a few days after subsidence of fever without congestion of the larynx. The affection lasted from six to ten days.

Wm. Robertson.

Taylor, J. S. (Norwich).—*Recovery of Voice fourteen years and a half after its loss.* “Brit. Med. Journ.,” Nov. 19, 1892.

THE patient, a female aged fifty-six, lost her voice in March, 1878, without any appreciable cause. The laryngoscope showed paralysis of the inter-arytenoid muscle. All routine measures proved ineffectual. In 1891 she underwent ovariotomy, and in 1892 her voice gradually returned again without apparent cause.
Wm. Robertson.

Loos (Graz).—*Tetany of Children, and its relations to Laryngospasm.* “Deutsche Archiv für Klin. Med.,” Band 50, p. 168.

THE author concludes his extensive review as follows: Tetany is often observed in early childhood. Spontaneous tonic contractures are rarely observed, but laryngospasm is often seen as a symptom of this disease. It seems doubtful if laryngospasm exists without tetany. The symptoms of the disease are caused by hyper-excitability of the peripheral muscles and nerves. The causes of tetany are not yet elucidated, but it appears to have a predilection for early childhood, and has no relation to rickets.

Michael.

Ball, J. B. (London).—*Report of Twenty-two Cases of Intubation of the Larynx.* “*Lancet*,” Nov. 26, 1892.

THE symptoms were in all cases those of acute stenosis of the larynx, threatening life. Ten recovered. Of the twelve which died, seven were cases in which tracheotomy was performed, after intubation had been tried and found insufficient. [This is quite natural, as the cases in which intubation has not the desired effect are just those in which tracheotomy is likely to fail.—Ed.] In two of the fatal cases the autopsy revealed ulcers on the anterior wall where the tube impinged. Of the ten cases in which recovery took place, one was traumatic, two, at least, were diphtheritic.

Dundas Grant.

Cheatham and Pusey.—*Report of Intubation.* Louisville, Kentucky.

Number done by Dr. W. Cheatham.....	56.
Number of deaths	34.
Number of recoveries.....	22.
Per cent. of recoveries	39·28
Number done by Dr. W. B. Pusey	70.
Number of deaths	37.
Number of recoveries.....	33.
Per cent. of recoveries	47.
Total (both)	126.
Total number of deaths	71.
Total number of recoveries	55.
Per cent. of recoveries	43·65

R. Norris Wolfenden.

Hagen (Berlin).—*Tracheotomy in Infants.* “*Deutsche Zeitschrift für Chirur.*” 1892. Band 2 and 3.

IN all cases of stenosis due to croup, tracheotomy should be performed. In the youngest children it has been followed by comparatively good results.

Michael.

Mackenzie, G. Hunter (Edinburgh).—*Case of Cystic Tumour of the Larynx in a Woman Eighty Years of Age—Intra-laryngeal Removal—Recovery.* “*Brit. Med. Journ.*,” Dec. 3, 1892.

THE success of the operation, more especially on account of the age of the patient, marks the interest of the case: as well does the fact of the growth having attained its large dimensions in from five to six months. On examination, the author found the growth springing from the left side, concealing the left cord and partly the right, and thus almost completely blocking the glottis. It was firm, smooth, red, and slightly movable. The epiglottis was pendulous, respiration dangerously difficult. After removal with Mackenzie's forceps, the breathing was instantly relieved. The tumour was found to be a cyst with a thick fibrous capsule and broad pedicle.

Wm. Robertson.

Schulten (Helsingfors).—*Contribution to our knowledge of Malignant Growths of the Larynx.* “*Finska Lakaresällskapets Handlinger,*” Vol. 33, s. 614.

THE author relates three cases of cancer of the larynx, stating as his opinion that microscopical examination alone is able to decide the

character of a malignant growth of the larynx in its early stage. Besides, mention is made of a case of a spindle-celled sarcoma of the left vocal cord, in which no recurrence has taken place six years after its removal, in a man aged forty-five, by the intra-laryngeal method.

Holger Mygind.

Grossmann, M.—*Death after Extirpation of the Larynx.* “Weiner Med. Woch.,” 1892, No. 43; and “Lancet,” Nov. 12, 1892.

FROM experiments on animals Dr. Grossmann arrives at the conclusion that the sudden change in the pulse, œdema of the lungs, and fatal “paralysis of the heart” occurring several days after the operation (even if unilateral), are due not to the division of the laryngeal nerves, but to irritation of their trunks produced somehow by changes proceeding in the wound.

Dundas Grant.

Lanz (Bern).—*Laryngectomies in Kocher's Clinic in Bern.* “Archiv für Klin. Chir.,” Band 44.

THE author reviews the indications and contra-indications for the operation, the technique, and after treatment. In two cases an early diagnosis could be made, and excision of the diseased parts was sufficient. One of these cases is up to now free from recurrence, fourteen months after operation; in the second case, local recurrence had necessitated operation. Partial extirpation of the larynx has been performed in five cases—in two for lupus, in one for sarcoma, and in two for carcinoma. Total extirpation was performed in six cases on account of carcinoma. Only one of these cases died from the operation, in the other recurrence followed a short time after.

Michael.

Seiffert.—*On Foreign Bodies of the Larynx.* Physikal-Medicinische Gesellschaft in Würzburg. Meeting, Nov. 19, 1892.

THE author gave a review of the current literature of the subject, and then showed a child from whose larynx he had removed a screw after tracheotomy. He showed the screw, and also a large piece of a bone which had been six months in the larynx of a child six years old, and had produced aphonia and dyspnoea. It was removed endo-laryngeally.

Michael.

Moskowitz.—*Scleroma of the Air-Passages.* “Pester Med. und Chir. Presse,” 1892, No. 6.

DESCRIPTION of the specimen from a case in which the larynx and trachea were affected and stenosed.

Michael.

Avellis (Frankfurt-a-M.).—*Tracheal Polypus.* “Monats. für Ohrenheilk.,” 1892, No. 7.

THE author reports the cases collected from the literature of the subject, and relates the following case from his own practice. A patient, aged fifty years, with a large goitre, coughed blood. The examination showed hyperæmia of the retro-pharynx, paralysis of the left vocal cord, and compression stenosis of the trachea. In the trachea a small mobile body could be seen indistinctly. Death occurred some days later from

pneumonia. The *post-mortem* examination showed the existence of a polypus, situated on the seventh tracheal ring.

Michael.

Seibert (New York).—*Syphilitic Broncho-Stenosis in Children.* “Archiv. of Pediatrics,” Nov., 1892.

THE author has, during the last three years, seen four children from one and a half to three and a half years of age, in whom stenosis had existed for three, four, and eight months. Cough, and later, hoarseness and aphonia were the primary symptoms: then shortness of breath and occasional dyspnoea occurred, became more frequent, and then barking or croupy cough, with severe attacks of dyspnoea would occur during the whole night, relief only coming after copious expectoration of mucus. The condition closely resembled empyema and asthma, and at other times acute laryngeal stenosis. In each case dulness existed over the right lung posteriorly, which did not reach to the base or apex of the lung. Vesicular breathing was entirely absent, giving place to sharp stenotic inspiration and expiration, most marked in front and behind the upper half of the right side, and with large and small *râles* over the dull area. There was granular swelling of the lower pharynx, yellow purulent secretion from the larynx and trachea, and, in the oldest child, papillous ulcers and gummatous infiltration of the tongue and pharynx; moderate glandular infiltration of the neck and groin existed; there was purulent discharge from the nose: no cicatrices: fairly good nourishment; normal temperature; irregular and slow respiration.

All four were children of poor Russian Hebrew immigrants.

The condition simulated laryngeal croup to perfection, and one child was intubated—of course, without relief to the respiration. The auscultation of the chest clearly showed that the main right bronchus was obstructed. The first case resembled obstruction by a foreign body, with secondary infiltration of the lung, but the condition gradually developed: cough, hoarseness, and aphonia developed before dyspnoea and stenosis. Tumours pressing upon the bronchus being excluded, only tubercle and syphilis remained to be considered. Hectic fever being absent, and the locality of the pulmonary affection, negatived tubercle.

Syphilitic broncho-stenosis has been described by E. Wagner (“Arch. d. Heilkunde,” iv. 1863) and Gerhardt (Sitzungst. d. Phys. Gesellschaft, Wurzburg, 1881), and by Kopp (“Deutsch. Arch. für Klin. Med.” xxxii.) and Gerhardt (“Deutsch. Arch. für Klin. Med.” 1867); Hüttenbrenner (“Jahrb. für Kinderheilk.” v. p. 701); Dittrich and Weil (“Deutsch. Arch. für Klin. Med.” 1874), and Gerhardt’s Cyclopaedia; also by Virchow (“Die Natur der Constitutionellen Syphilitischen Affectionen,” 1859), and Wagner (“Ueber das Syphilom,” 1863), and by Schnitzler (“Die Lungen Syphilis” Wien, 1886), Lanceraux, Fournier, Cornil, Oppolzer, Granddier, &c.; and by Dillon Brown (“Arch. of Pediatrics,” 1892), who lately recorded a case in a boy of six necessitating intubation.

The disease is rare in children. The first case of the author gradually got worse and died, the condition not having been diagnosed. The others speedily recovered under iodide of potassium and inunctions of mercurv.

In the discussion which followed the reading of this paper at the Am. Ped. Soc., Boston, May 4, 1892,

Dr. CAILLE stated that he had seen several such cases. At the autopsies of two cases the areas of dulness referred to by Dr. Siebert were found to be atelectatic areas. One-sided stenotic breathing being frequently found in membranous stenosis of the trachea, absence of vesicular murmur cannot be used to differentiate between chronic and acute stenosis. He recommended fumigations of calomel.

Dr. JACKSON related two cases in adults.

Dr. SIEBERT remarked that there was one form of syphilitic stenosis which would not be benefited by iodide of potassium, viz., where cicatrices press upon the bronchial tubes and occlude them. He preferred iodide given per rectum, which did not upset the digestion, and mercury given the ordinary way, and not by fumigations. He did not know of more than six cases of broncho-stenosis of syphilitic origin having been reported in children.

R. Norris Wolfenden.

Poncet (Lyons). — *Actinomycosis of the Right Cheek and of the Corresponding Maxilla; Extension to the Lungs.* Paris Academy of Medicine. "The Medical Week," Dec. 23, 1892.

A WOMAN, in April last, a week after the extraction of a tooth, complained of a swelling in the right submaxillary region. This consisted of enlarged glands and was very painful. It gradually invaded the region of the parotid and the right cheek with the formation of abscesses and fistulae. For a week or so there was a discharge of pus from the nose and ear on the right side, as if abscesses had burst into these cavities.

A month ago the disease suddenly took a new extension. The swelling rapidly spread to the temporal region, where another fistula formed within a fortnight.

About the same time she developed some pulmonary symptoms ; she began to cough and expectorate, she rapidly lost strength and flesh, and in consequence came to the hospital. A purulent sanguous fluid could be pressed out of the fistulæ, containing the yellow bodies characteristic of actinomycosis.

By staining these bodies with picro-carmine or eosine, taking care not to squeeze them too much with the cover glass, the ray-like arrangement and the club-shaped ends of the rods were readily recognized.

The lung condition presented all the physical signs of pulmonary tuberculosis, but no bacilli were found in the sputum even on the most careful examination.

The yellow granules of actinomycosis were not so easily detected in the sputum as in the pus, as they were much fewer in number and not so well coloured.

The extent of the maxillary and cranial lesions, and particularly the condition of the lungs, contra-indicated all interference, and the patient was sent home after a few weeks of palliative treatment.

R. Norris Wolfenden.

Downie (Glasgow).—*Foreign Bodies in the Lung.* “Brit. Med. Journ.,” Dec. 17, 1892.

In referring to a case, he remarks upon the liability of suffocation by impaction of the body in the larynx during strong expiratory efforts, one reason for performing tracheotomy at once; another is due to the reasonable supposition that a foreign body in the lung must eventually set up injurious processes in the lung, bronchiectasis, abscess, etc., if allowed to remain—an equally good reason for at once performing tracheotomy and exploring with sound and forceps where inversion has failed. In one such case, a boy aged nine, while eating hazel nuts inhaled a piece of one: twenty-three days after there were noticeable flushing, high fever temp. 104·2, cough, and immobility of right side. There was an area of dulness over right base, and blockage of right bronchus. Tracheotomy was performed, the patient being allowed to come to before the trachea was opened so as to allow of free coughing. Mucus and blood were at first expelled. While using a fine laryngeal probe, a violent cough brought away foetid muco-pus along with a pyramidal-shaped portion of the nut kernel, measuring a quarter of an inch by three-eighths of an inch, smaller pieces following. Air now entered the right lung freely, a result on which we must congratulate Dr. Downie. Next day the patient was virtually well.

Wm. Robertson.

THYROID GLAND, &c.

Horne, R. M. (Edinburgh). — *The Blood-Vessels of the Thyroid Gland in Goitre.* “Lancet,” Nov. 26, 1892.

GUTKNECHT (“Die Histologie der Struma”—“Virchow’s Archiv,” Band XCIX. 1885) has remarked on the occurrence of hyaline changes in the walls of the vessels, and of colloid material in the lamina in extirpated goitrous thyroids. He derived these colloid masses from the red corpuscles of the circulating blood. Horne examined a number of normal thyroids from adults and foetuses, and found projections into the lamina of the smaller arteries, formed by proliferation of the endothelium of the intima. These projections or “buds” resembled young gland follicles, and in several sections were found to contain colloid not to be distinguished from that in the true gland follicles. It would seem, therefore, that they possess in common with the thyroid follicles the power of secreting or of producing colloid material. Nothing similar was found in the veins.

Dundas Grant.

Braun.—*On the Genesis and Diagnosis of Intrathoracic Goitres.* Med. Gesellsch. in Leipzig, Meetings, Aug. 2, 1892, and Oct. 25, 1892.

THE surgery of goitre has made great progress. The mortality of the normally situated goitres is rather less. Goitres situated in the thoracic cavity arise from degeneration of accessory strumous glands. The author

has observed a patient with the symptoms of compression. A tumour of the size of an egg was situated on the aorta. The author performed extirpation and cure resulted.

Michael.

Wiesmann (Herisau).—*Case of Struma Intrathoracica.* “Correspbl. für Schweizer Aerzte,” 1893, No. 1.

A PATIENT, fifty-six years old, had during his whole life difficulties of breathing, which in his latter years increased constantly. He finally also had dysphagia, and died from marasmus. The anterior mediastinum was filled with a tumour of the size of two fists, which compressed the œsophagus and trachea. He also had a calcified struma situated on the right side of the larynx.

Michael.

Krönlein (Zürich).—*On Death from Goitre.* “Beiträge zu Klin. Chirurgie,” IX. 3.

IN one hundred and ninety-one cases of goitre operated upon by the author, there were none without more or less dyspnœa. In most cases it was a chronic and increasing dyspnœa. In some cases he observed sudden death. He believes that these cases must be explained by suddenly increasing pressure of the goitre upon the trachea, caused by increased dyspnœa from an unusual position or from mucus in the trachea.

Michael.

Brady.—*A Case of Thyroidectomy — Successful Result.* “Australasian Med. Gaz.” Sept. 15, 1892.

THE case was that of a girl, thirteen and a half years old, with a rapidly growing thyroid hypertrophy. The operation was performed when distinct pressure symptoms had developed, and medicinal treatment had entirely failed to benefit. The left lobe of the gland was removed, and measured three and a half inches long, two and a half inches broad, and one inch thick. It weighed five ounces, and did not contain any cysts. Mr. Berry's method of operation was followed as closely as possible, and was successful.

B. J. Baron.

Moussu.—*On Experimental Thyroidectomy.* Biological Society, Paris, Dec. 17, 1892; “Medical Week,” Dec. 23, 1892.

THE author recently performed some new experiments to ascertain the effect of thyroidectomy on the lower animals, and the results may be summed up as follows:—

1. That the so-called accessory thyroids play a different part in the economy of young as distinguished from adult animals.
2. That excision of these glandular structures arrests or obviously retards the growth of young subjects.
3. Thirdly, that excision may be followed by the production of myxœdematous cretinism in certain cases, in others of atrophic cretinism.

The importance of the so-called accessory glands is, therefore, more and more doubtful.

The thyroid body exerts a physiological influence on the general

nutrition of the organism, which manifests itself in a variety of changes perfectly recognizable in the different animal species.

Dr. GLEY remarked that the number of experiments which form the basis of Dr. Moussu's communication is not large enough to enable us to draw definite conclusions from them. Besides, these experiments were performed at a time when the existence of the accessory thyroids was unknown. Long before Dr. Moussu, other investigators, Schiff and himself among others, had pointed out the greater gravity of thyroidectomy in young animals than in old ones. In the third place, whatever interest may attach to Dr. Moussu's new experiments on kids, young pigs, and rabbits, it must be admitted that the same cretinoid state and myxoedematous condition were experimentally produced in monkeys by Horsley as early as 1885. He still persisted in believing that the trophic changes found in several rabbits and one dog, which he exhibited at a meeting of the society, are very closely related to myxoedema.

Now, as regards the results of thyroidectomy in rabbits, one fact is beyond all doubt, viz., that most of the animals operated on die. When they survive it is due to the fact either that the accessory glands have not been removed, or that a portion of the thyroid body has unintentionally been left behind, and has become hypertrophied, an occurrence he has several times had occasion to observe. The importance of the accessory thyroids is sufficiently apparent from the fact that, before his experiments, no changes were observed in rabbits after thyroidectomy, and the phenomena described by him in rabbits have recently been observed by Cristiani in other rodents (more than one hundred rats and mice). It is essential, therefore, that the experiments should be published with the fullest details, and the bodies of the animals operated on submitted to a careful examination after death.

R. Norris Wolfenden.

Eiselberg.—*Inhibition of Growth in Sheep after Thyroidectomy.* “Lancet,” Oct. 29, 1892 (Vienna Letter).

Dr. EISELBERG, assistant of Prof. Billroth, removed the thyroids of two lambs at birth, and compared them, after eight months, with two not operated on. The subjects weighed only ten and fourteen kilos, as against thirty-five and thirty-seven on the part of the normal ones. The hind part of the head and the abdomen were enlarged; the tail was rudimentary, the testicles atrophied, the fleece bad, the intelligence wanting, and they suffered from bronchial catarrh. Therapeutical experiments are to be made.

Dundas Grant.

Mackenzie, Hector (London).—*Treatment of Myxoedema.* “Lancet,” Oct. 29, 1892.

THE thyroid gland, known to butchers as the “throat-bread,” is given minced, and either plain or with a little brandy. One thyroid every other day is enough. A home-made extract may be made by mincing up the thyroid, rubbing it up in a mortar with a little crystallized sugar and glycerine, then adding a little water, and, after allowing it to stand for an hour or two, filtering through calico or muslin.

Dundas Grant.

Pott (Halle).—*On Hyperplasia of the Thymus and its Danger to Life.* “Jahrl. für Kinderheilk.” Band 34, Heft 1.

In eighteen cases of one hundred and seventy-six of laryngismus stridulus the author has observed sudden death. In four of these cases, which died in the presence of the author, he found an enlarged thymus gland. The author believes that the enlarged thymus may be dangerous by causing compression of the trachea and of the large vessels, especially of the pulmonary artery. The cases observed by the author gave the impression that the children did not die from suffocation, but from disturbance of the circulation and sudden cessation of the action of the heart. Artificial respiration and tracheotomy were without any effect.

Michael.

E A R.

Barr, Thomas (Glasgow).—*Treatment of the Nose and the Throat as a source of Middle-Ear Disease.* “Lancet,” Dec. 17, 1892.

DR. BARR points out the now well-known dangers attending the use of the nasal douche. He thinks the entrance of fluid into the middle-ear is a common occurrence, though fortunately not always followed by inflammatory mischief.

He inculcates the necessity in the use of the nasal douche for careful instruction by the medical attendant; the previous examination of the nasal passages, so that in case of one side being narrowed the douche should be injected *into the obstructed side only*; the avoidance of a tight-fitting nozzle; the avoidance of great force; the fall in Weber's douche not to exceed two feet; a comfortable degree of warmth, and the admixture of one per cent. of salt or soda with, in ozaena or other bacterial diseases, a definite antiseptic; avoidance of the act of swallowing (as by protruding the tongue); the avoidance of the douche in the case of infants, young children, and adults with abnormally patent tube, nasal instillations being substituted; abstention from blowing the nose, and if possible from sneezing for at least a quarter of an hour after the douche; performance of the act of swallowing with the nostrils closed if pain in the ears evidence the entrance of fluid; great care, or even avoidance of the douche or syringe, and of exposure to cold or septic influences, for several days after operations or cauterizations on the nose or naso-pharynx: scrupulous cleanliness and asepticity of all instruments—cutting instruments, cautery points, finger-nail, etc. [The editor would like to draw attention to the safety nasal douche exhibited by him before the Laryngological Section of the British Medical Association at Nottingham, and reported in the JOURNAL OF LARYNGOLOGY for September, 1892.] *Dundas Grant.*

Field (London).—*The Pathology and Treatment of Suppurative Diseases of the Ear.* “Brit. Med. Journ.” Dec. 3, 1892.

THE author, after referring to the predisposing causes of suppuration, i.e., any influence inducing a condition of the tympanic mucosa suitable

for the propagation of pyogenic organisms, enumerates the several pyogenic bacteria found in middle-ear suppuration. The pyogenic bacteria found in the middle ear are enumerated as follows :—

1. Streptococcus pyogenes.
2. Staphylococcus.
3. Pneumococcus of Fraenkel.
4. Pneumo-bacillus of Friedländer.
5. Tubercle bacillus.

To illustrate which, drawings by J. J. Clarke are given. The preponderating frequency of the first in causing suppuration is noted, more especially its being the agent in precipitating cerebral abscess, etc., as a sequel to otitis. To the irritation of staphylococci is attributable the hypertrophy of the pharyngeal tonsil, which so often leads to purulent otitis, while the tubercle bacillus is frequently found in the muco-pus in the tympanum attendant on severe cases of tubercular meningitis. The author further alludes to the extension of suppuration from the tympanum to neighbouring dangerous regions.

Where the free flow of pus from the tympanum is obstructed, facial paralysis leading to wasting of muscles from peripheral neuritis sets in. On the same side as the paralysis there is loss of taste from injury to chorda tympani.

Under "Treatment of Otorrhœa with Perforation," thorough washing of the tympanum with antisepsics three or four times daily is commended, along with politzerization, which of itself in children may prevent an otorrhœa if carried out in the earlier stages of inflammation. [The use of cocaine at this stage is an important adjunct. Peroxide of hydrogen, fifteen volume solution, is recommended (more especially where cholesteatomatous masses are met with) in chronic otorrhœa.] For eczema auris, dilute mercury ointment is to be tried, taking care to free the meatus from discharge [as an unfailing remedy for this affection might well be mentioned glycer. acid. tannic].—For furunculosis, an alcoholic solution of boracic acid is recommended, making incisions to relieve tension. For exostoses, the drill is the favourite instrument of the author. [It must be admitted that drilling is a most tedious process, and not to be compared for celerity and effectiveness to the alternative of detaching the auricle and lifting the cutaneous meatal wall out of the way and detaching the exostosis with hammer and chisel.—Rep.]

Wm. Robertson.

Clutton, H. H. (London).—*A successful Case of Ligature of the Internal Jugular Vein, and Trephining of the Lateral Sinus in an Ear Case where the symptoms of Pyæmia were well pronounced.* “Brit. Med. Journ.” April 19, 1892.

THAT of a boy aged ten, complaining of pain in the head and right ear, from which previously a discharge had been noticed. Swelling in the neck at angle of jaw and rigors followed, with temperatures ranging from 103-105° Fahr. No optic neuritis or mastoid tenderness. The jugular was exposed, and divided between two ligatures, the vein being found to contain a thrombus. The lateral sinus was next opened, and found to contain pus, and this was washed out by syringing through the distal

opening in the vein. Metastatic suppuration took place over the left ulna and the left ankle, and was duly treated, after which the boy gradually recovered, with the exception of a few granulations in the tympanum. Primary emboli in the lung were not noticed, and were effectually stopped by the ligature of the vein, which is the first step to be adopted in such cases (supposing, of course, that the case is not met with when mischief is brewing in the mastoid antrum).

Wm. Robertson.

Parker, Rushton (Liverpool).—*Aural Pyæmia successfully treated by Removing Putrid Thrombus of Jugular Vein and Lateral Sinus.* “Brit. Med. Journ.,” May 21, 1892.

THE patient, who had been kicked over the left ear at the age of fourteen, and had had discharge from it ever since, was admitted, having suffered from pain for a week in the ear : for three days had had rigors, vomiting, restlessness, and giddiness. There was swelling and tenderness of the neck over the upper part of the left jugular, but no mastoid swelling. There was double optic neuritis. The jugular was first exposed and ligatured, then the mastoid and lateral sinus were opened, and, as in Clutton's case, through drainage effected. A subsequent relapse was found to be due to some antrum mischief, remedied by appropriate treatment. The patient made a good recovery.

Wm. Robertson.

Field (London).—*Intra-Cranial Abscess.* “Brit. Med. Journ.,” Dec. 17, 1892.

FOR the most part a review of the literature of the subject. In his reference to the complications of suppuration of the middle ear, Mr. Field refers (1) to facial paralysis from cerebral or peripheral implication, meningitis, or abscess. 2. Suppuration of the mastoid cells and sometimes also of the deeper tissues of the neck, more commonly sub-periosteal abscess, and necrosis, and sclerosis of the mastoid. [A reference might here have been made to Bezold's form of mastoiditis, which is liable to be complicated with facial paralysis and notoriously with phlegmon and abscess of the soft parts inferior to the mastoid apex. Perforation of the mastoid mesial by and into the posterior wall of the meatus takes place in this form of mastoiditis.] 3. Extra-dural abscess. 4. Meningitis. 5. Cerebral abscess from direct extension of septic inflammation along veins or lymphatics from the roof of the tympanum, mastoid antrum, or lateral sinus. 6. Thrombosis of the lateral sinus and internal jugular vein. 7. General pyæmia. 8. Marasmus.

Mr. Field further states that intra-cranial lesion is usually associated with at least one other complication ; that, provided there is free exit for pus, the patient's general health remains good : and that caries and necrosis of the temporal bone may be extensive without causing cerebral mischief. In dealing with the symptoms of cerebral implication the author refers to pain over the mastoid region and racking headache as symptoms of actively inflammatory brain lesion from aural suppuration : vertigo is another well-marked symptom in chronic cerebral irritation. Oscillations of temperature and rigors are indicative of pyæmia.

Wm. Robertson.

Barr (Glasgow).—*Case of Aural Exostosis causing Purulent Retention in the deep parts of the Ear, removed with the Electric Snare.* “Brit. Med. Journ.” July 2, 1892.

THE patient, a female aged twenty-four, with history of discharge from left ear for eight years. On admission she complained of pain in the ear and the same side of the head, and also of giddiness, tinnitus, and rigors. Examination showed a white, firm, rounded body just inside the meatus, evidently springing from the posterior wall of the same, near the junction of the bone and cartilage. With the electric snare, under chloroform, it was readily removed, from the fact that it was found pedunculated. Marked disease of the middle ear was now observed. With the removal of the exostosis the aural symptoms disappeared. The growth was found to be constituted of dense bone covered by a thin layer of cartilage. The author in dealing with the etiology of those growths refers to gout and syphilis as probable factors, but insists on an origin arising from irritative processes in the meatus, e.g., chronic otitis media purulenta, or entrance of water into the meatus. Cassells referred such growths to ossification of granulations sprouting from an abscess cavity. Note is made of their growth invariably taking place from the mastoid wall of the meatus the site most often affected by inflammatory processes. *Wm. Robertson.*

Laker.—*On Internal Massage of the Mucous Membrane, and its Relation to Acute Disease.* Verhandlungen des Deutschen Otologischen Gesellschaft, Frankfort-a-Main, April 16, 1892.

BY systematic massage of the nasal and pharyngeal mucous membrane the author has often observed improvements of chronic catarrhs of the middle ear. *Michael.*

Charazac (Toulouse).—*Notes on Syphilitic Internal Otitis.* “Journal of Laryngology and Ophthalmology,” Oct., 1892.

THE labyrinth and the auditory nerve may be attacked by syphilis in the different stages of its evolution, either primarily, outside of any other lesion of the auditory apparatus, or, secondarily, by propagation of the affection from the middle ear to the internal ear. In the “isolated” internal otitis either the nerve is attacked or the disturbances are produced by osseous or congestive lesions of the walls of the labyrinth. In the other mode of attack the direct vascular communications that exist between the vessels of the tympanum and those of the cochlea are the channel for the mischief. Intense tinnitus, troublesome vertigo, cephalgia, and, in some cases, facial paralysis accompany the disturbances of hearing. The tympanum and drumhead are often found to be normal. The cranial perception of the watch is abolished or markedly diminished, even when there still exists a very good degree of hearing. In all cases the fork is heard much longer by the cranial than by the aerial passage. Very rarely the auricular lesions and the deafness follow suddenly after the appearance of a chancre, and before any secondary manifestations of syphilis are noticeable. The author advances the hypothesis that where the primary lesion is in the throat, tonsil, lip, or maxilla, the cerebral lesion is more to be feared than if it is in the genitalia. *B. J. Baron.*

Cheatle, Arthur H. (Vienna).—*The Mastoid Antrum in Children.* “Lancet,” Dec. 3, 1892.

IN a number of children varying in age from one to twelve years, the condition of the antrum was pretty uniform. It was conical with the apex, externally and below, the base being internal and above. The diameter of the base, and the length from base to apex, were both from a quarter to three-eighths of an inch. The sides are external, antero-internal and postero-internal, the entrance being at the upper and anterior angle. The apex abuts on the base of the mastoid process. He objects to the antrum being dubbed mastoid, as it is really part of the petrous bone, and suggests a better name would be “tympanic receptaculum.” [Why not “petrous antrum” or “tympanic antrum,” so as to retain the well-established term without outraging anatomical accuracy?]

Dundas Grant.

Black (Edinburgh).—*Note on Perforation of the Mastoid for Middle-Ear Disease.* “Brit. Med. Journ.” April 9, 1892.

RELATES as to the use of a gimlet and cone-shaped burr, a suggestion by Dr. Hunter Mackenzie, to perforate the mastoid antrum, which, in the hands of Dr. Black, has given satisfaction.

Wm. Robertson.

Politzer, Adam (Vienna).—*On Perforation of the Mastoid Process in Cases of Acute Otitis Media due to Influenza.* “Brit. Med. Journ.,” Dec. 31, 1892.

IN Dr Politzer's Viennese experience influenza in attacking the ear gives rise with exceptional frequency to purulent inflammation of the middle ear, attributable to the passage of germs from the pharynx, and commonly complicated with mastoid abscess, rendering perforation of the bone unavoidable. In considering the classification of mastoid suppurations it is pointed out that the mastoid process presents three varieties of structure:—

1. Mostly made up of cellular spaces ;
2. Entirely of diploe ;
3. Air spaces and diploe.

The first is most prone to abscess formation, the pus in ordinary cases being absorbable, but in influenza the special organism of the disease exercising a destructive effect on the bony tissue prevents absorption, and renders operation necessary. Caries of the bone limiting the pus is observed. In diploetic mastoids abscess of the bone was also met with, rarely evacuating spontaneously. The symptoms relied upon (indicating abscess formation) were spontaneous pain in mastoid, with tenderness on pressure over middle and lower part, increased temperature over the region, and generally no notable cutaneous infiltration unless where there is superficial periostitis. Temperature slightly raised, and worst at night. The course of the affection was as follows: Mastoid and tympanic abscesses proceeded *pari passu* (without perforation of latter), necessitating perforation of both; more often the membrana tympani was perforated. While the mastoid abscess remained, otorrhœa continued, but sometimes the abscess was absorbed, and cure resulted spontaneously as an ordinary otitis media.

As a rule the morbid state continued, leading to caries, etc., and demanded operation, antiphlogistic measures proving inadequate. In one

case Politzer found the lateral sinus exposed in a large cavity which, being opened in time, saved the patient.

Treatment.—Iodine, Leiter's coil, and washing out tympanum, etc., may subdue the symptoms, and lead after a week or two, to cure; if however, the febrile condition and local symptoms have continued for more than eight days, or if the antiphlogistic measures afford no relief, opening the mastoid must be thought of. The incision, four to five centimètres long, curved, through the skin, half-a-centimetre behind the concha, reaching to the upper limit of the bone, is effected, and the periosteum cleared to expose the middle and lower part of the process. The cortex is removed to the depth of from a half to one centimetre by means of a gouge, six millimetres in breadth, held obliquely to the surface. In the course of section pus is met with. Several small abscesses, separate or in communication, are sometimes met with. The abscess may now be scraped out. In only one case operated on was there communication of abscess with antrum.

Results.—Only one fatality. Fever soon disappears and discharge from the ear decreases in a few days, but not less than fourteen days. Wound heals (under iodoform gauze) in from three to four weeks.

Dr. Politzer wisely commends a more precise knowledge of operations on the mastoid amongst surgeons, more especially those in country practice, as in some cases delay is fraught with danger, and justly remarks that aural surgery should be rendered an obligatory subject of examination for the student in order that this branch of medicine should become the common property of all practitioners. *Wm. Robertson.*

REVIEWS.

Halbeis (Salzburg). — *Die adenoiden Vegetationen des Nasenrachenramus hyperplastice der Tonsilla Pharyngia bei Kindern und Erwachsenen und ihre Behandlung.* München and Leipzig: J. F. Lehmann. 52 pages. 1892. (“Adenoid Vegetations of the Naso-Pharynx; Hyperplasia of the Pharyngeal Tonsil in Children and Adults, and their Treatment.”)

IN a well-written treatise, read before the Medical Association of Salzburg, the author describes the pathology, etiology, and treatment of adenoid vegetations, and concludes with a table of five hundred and forty-two cases collected from his own practice. Naturally the greater portion of the facts communicated are well known to specialists, but some of the remarks of the author may be of interest. He agrees with Michael, Mackenzie and Schech that the disease is not scrofulous, and is often observed in patients without any other signs of scrofula, but sometimes both affections are combined. Adenoid vegetations also never contain tubercle bacilli. Complications such as coryza, eczema, and swollen glands are always cured by operation upon the tonsil. In some cases laryngismus stridulus can be cured by removing the pharyngeal tonsil. Discharge of pus from a recessus media, as described by Tornwaldt, the author has observed in forty-seven cases; aprosexia in two cases;

enuresis in one case. As to treatment, the reviewer agrees entirely with the author, who uses cutting forceps, and only in rare cases operates under narcosis.

Michael.

Grunwald (München). — *Die Lehre von den Naseneiterungen mit besonderer Berücksichtigung des Lieb und Keilbeins, und deren Chirurgische Behandlung.* ("Treatise on Nasal Suppuration, with special reference to the Sphenoidal and Ethmoid Sinuses, and their Surgical Treatment.") München and Leipzig: J. F. Lehmann. 1893. 163 pages and 5 woodcuts.

THE author believes that in most cases of rhinitis purulenta suppuration of the whole nasal mucous membrane does not exist, but that there exist nearly always processes in the accessory cavities or of certain parts of the nose.

I. Acute suppurations are produced (1) by folliculitis introitus nasi : (2) in rare cases by abscesses of the septum ; (3) acute coryza combined in rare cases (4) with an acute empyema of the antrum of Highmore : (5) in two cases empyema of the ethmoid bone has been observed by the author ; (6) acute suppuration of the naso-pharyngeal space ; (7) erysipelas of the face and the retro-pharynx.

II. Chronic suppurations are produced (1) by adenoid vegetations ; (2) by foreign bodies : (3) chronic dry catarrh of the pharynx, which is often a symptom of diseases of the naso-pharynx : (4) as to ozæna the author believes that it is a symptom usually caused by some other disease, generally by caries or empyema of the accessory cavities. A certain case of genuine atrophy with fœtor has never been found in any case. Hæmorrhages are rare in diseases of the accessory cavities ; and the observation of a patient who nearly died from haemorrhage caused by caries of the ethmoid and sphenoid bones is of interest. Chronic empyemas are often combined with polypi, anosmia, and in rarer cases with diseases of the eyes, mental aberrations, abscesses of the face, thrombosis of the sinuses and meningitis, hematocephala facialis progressiva. Etiological causes of suppuration of the ethmoid bone are infection of the teeth, trauma, and acute infectious diseases. Spontaneous cure of suppuration of the accessory cavities is very rare, and the prognosis is bad, unless surgical treatment is undertaken. With regard to the antrum of Highmore the author believes that there is only one certain method of diagnosis — the puncture and irrigation. Illumination does not give certain results. For treatment the author recommends a large opening to be made through the nasal wall of the sinus. For after treatment the author applies iodoform ether with some crystals of sodium sulphide, by which the free iodine is absorbed and cannot cause irritation. In chronic cases of suppuration of the ethmoid bone the empyema may be pent up in the cells, or it may have free discharge. As a typical operation for empyema of the ethmoid bone the author recommends an arcuate incision under and parallel with the eyebrow, elevation of the periosteum and opening of the bone by a chisel. Latent empyema of the ethmoid bone is often difficult to recognize. The author refers to the different symptoms, strongly recommends examination with the probe, and refers to thirty-two cases which have occurred in his own practice.

The operation to be performed should be done with the sharp spoon under narcosis and should be followed by tamponing with iodoform gauze to control haemorrhage : the tampons must afterwards be removed to allow discharge of pus. Sometimes caries of the ethmoid bone is observed without empyema. The author concludes with some remarks on empyema of the sphenoid and frontal cavities, the combined empyemata and ulcers of the bones.

There is in this book so much that is new, that it is not easy to judge of the truth of all the theses and hypotheses—this must be proved by further observations : but at all events it is very interesting and brings so many fresh points under review that it will be read with great pleasure by everyone.

Michael.

Obituary.

FRANKLIN HENRY HOOPER, M.D.

IT was with sincere regret that we heard of the death of this eminent American specialist, which took place on November 22nd. It was only during the last summer that we received a visit from Dr. Hooper and had the pleasure of showing him over the Throat Hospital in London, and exhibiting to him a number of cases in our clinic, in which he took a keen interest. From Dr. Hooper's enthusiasm in laryngological matters we had little reason to suspect that a fatal disorder was even then hanging over him which would terminate in the extinction of a young and valuable life so shortly afterwards. We learn from the "Boston Medical and Surgical Journal's" full and sympathetic obituary notice of the deceased physician, that Dr. Hooper had suffered from leucoma of the tongue since 1884, and that in 1891 epithelioma appeared, necessitating the removal, in the autumn of that year, of a portion of the tongue. After a period of comparative health, during which Dr. Hooper took a holiday in Europe, passing a short time in London, the disease recurred in the glands of the neck, growing rapidly, and ending fatally in November, 1892.

Dr. Hooper was born in 1859, was educated at Harvard Medical School, and in 1876 came to Europe, where he spent some years, particularly in Paris and Vienna, at the latter centre working assiduously at laryngology, especially in Sebroetter's clinic. In 1880 he was appointed assistant in the out-patient department for diseases of the throat at the Massachusetts General Hospital, and was made district physician of the Boston Dispensary. He was subsequently appointed aurist at the Boston Dispensary, and afterwards physician to out-patients with diseases of the throat at the Boston City Hospital. Though he subsequently resigned this post, owing to increasing private work, he continued his connection with the Massachusetts General Hospital as physician to the end of his life. For several years Dr. Hooper had been Professor of Laryngology at the Dartmouth Medical College, and Instructor in Laryngology at the Harvard Medical School. He was a Fellow of the

American Laryngological Association, and was one of the founders of the American Climatological Association.

Dr. Hooper contributed to the International Congress of Copenhagen in 1884, and Berlin in 1890, at which meeting he demonstrated his experimental work on the larynx of the dog. Dr. Hooper is best known in Europe by his original work on the "Physiology of the Larynx," and by the following papers :—

- "The Respiratory Function of the Human Larynx."
- "Experimental Researches on the Tension of the Vocal Bands."
- "Concerning the Position of Paralysed Vocal Bands."
- "The Anatomy and Physiology of the Recurrent Laryngeal Nerves."
- "The Effects of Varying Rates of Stimulation on the Action of the Recurrent Laryngeal Nerves."

Work which deservedly stamped its author as a scientist and thinker.

As the writer in the "Boston Medical and Surgical Journal" states, Dr. Hooper had been for several years in the full tide of professional success, and his reputation as a specialist in America was one of which he might justly feel proud. He was modest and unassuming, cultured and refined, and the profession in America has lost a bright ornament by the too early decease of this scientific and enthusiastic specialist.

Dr. J. CHARAZAC.

WE notified last month the decease of this young French specialist, and we are now indebted to the editor of the "Revue de Laryngologie," &c., for some details of Dr. Charazac's career.

At the time of his death he was only thirty-four years of age, but had already attained to an honoured position in the specialty. He was associated intimately with Dr. E. J. Moure, along with Drs. Miot, Noquet, and Wagnier, as one of the editorial committee of that excellent special journal, the "Revue de Laryngologie, d'Otologie, et de Rhinologie," in which journal his name frequently appeared as a contributor.

He was associated with Dr. E. J. Moure as a collaborator in the translation of the second volume of the work on diseases of the nose by the late Sir Morell Mackenzie, and was the writer of numerous original papers :—"Œdema of the Larynx" (1885); "Sulphurous Waters in Laryngeal Tuberculosis" (1887); "Suppurative Discharges from the Ears" (1887); "Rhinoliths" (1888); Tracheotomy and Inter-crico-thyroidian Laryngotomy" (1889); "Malignant Tumours of the Ear" (1892), &c.

He early took a special interest in the treatment of tuberculosis originated by Koch, and spent some time in Berlin studying the method, of which he formed a very unfavourable opinion, and was one of the first to warn against the bad effects of the too-hasty adoption of this system of treatment. Dr. Charazac was an indefatigable worker and an enthusiast, and had gained for himself a position as one of the most prominent and honoured of French specialists.

His untimely death will be deplored by a large circle both in France and abroad.

R. Norris Wolfenden.

ASSOCIATION MEETINGS.

SOCIETY OF LARYNGOLOGY, OTOLGY, AND RHINOLOGY OF PARIS.

July, 1892.

Instruments for the Ablation of Laryngeal Growths in Children by a Method of Intubation with Fenestrated Tube.¹ By Dr. LICHTWITZ.

The author has employed this method in more than thirty sittings, and has learnt the position which the fenestra should occupy for papillomas in different situations, and also the most suitable instruments for the removal of these growths through the tubes. The same fenestrated tube may be employed for growths in any situation, provided the fenestra correspond as to height and direction with the situation of the growths. For growths on the arytenoids and upper surface of the ventricular bands, instead of withdrawing the tube he has devised special tubes, having at their upper part a projecting edge of 7 to 10 millimetres instead of the usual 5 millimetres found in ordinary tubes. This projection exists only in two-thirds of the circumference of the tube, the other one-third being occupied by the fenestra.

For the removal of growths which project into the tube he at first employed the forceps of Türek-Schroetter and Heymann, but in consequence of having to frequently introduce them he has devised two instruments which permit the removal of the whole mass projecting into the tube at one attempt. One is a cutting curette with exactly the same diameter as the tube similar to a tube forceps, and is suitable for projecting masses of considerable size.

The other instrument has an upper and a lower portion which can be separated or approximated; the lower section has a pannier form with an upper cutting edge, and the lower edge of the upper section covers this cutting edge when the parts are approximated. These sections are furnished with large holes for the passage of air.

The instrument is introduced through the tube closed to the lower edge of the fenestra, the maximum of separation having been regulated on the tube before introducing; the pannier is drawn up and from its rotatory motion it cuts away what projects into the tube. It can be adapted to any handle, but preferably to that of Stoerk's. The author has since slightly modified the tube by making the upper one-third exactly cylindrical, instead of conical as is usual. This permits the pannier to glide without trouble up and down.

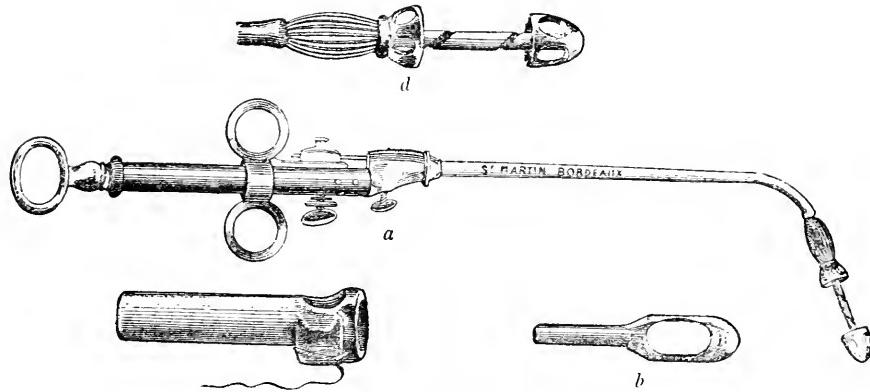
This pannier has been employed successfully in all cases where the projecting growths were not so great as to interfere with the passage of the instrument.

The pressure of the tube upon the mucous membrane to some extent enucleates the growths hidden below the ventricular bands and ventricles,

¹ These instruments may be obtained from M. Saint-Martin, 116, Cours d'Alsace et Lorraine, Bordeaux. It is important to mention the age of the child for whom the tubes and instruments are to be employed.

so that the growths appear laryngoscopically more voluminous after insertion of the tube than they did previously.

These instruments, especially the pannier, not only cut, but to some extent tear the growths off.



Laryngeal pannier, *a d*; cutting curette, *b*; fenestrated tube, *c*, for ablation of papillomata situated on the ventricular bands and arytenoids.

The Pathological Anatomy of "Singers' Nodes." By MM. SABRAZES and FRECHE.

I.

"Singers' nodes" are white, well limited projections of the size of a millet seed, or smaller, and located generally at the junction of the anterior with the middle third of the free edge of the vocal cords. They are rounded, and either pedunculated or sessile; the surface, though generally smooth, may be toothed or fringed. There may be one nodule or two, symmetrically placed one on each side. They occur generally after chronic laryngitis or abuse of the voice, accompanied with functional disturbances, the chief of which is paresis of the constrictors. This disappears generally after removal of the nodules. These may be spontaneously cured, or remain stationary for years.

Their histology has been but little studied, but the authors have studied some specimens put at their disposal by Dr. Lichtwitz from his private and hospital practice.

The authors relate the details of three cases operated upon by Dr. Lichtwitz.

II.

The first nodule showed (after hardening in absolute alcohol, and embedding in celluloidin) on section, thickened epithelium and chorion. The epithelium presented after staining with carmine—

1. An outer cornified layer, yellow in colour, with a thickness of 8 to 20 micromètres.
2. An underlying zone of pavement epithelium taking deep stain, and from 24 to 80 micromètres thick, consisting of four to six rows of flattened cells, very distinctly nucleated.
3. A layer of lozenge-shaped cells, and deeper still polyhedral, rose coloured. The nuclei stained with rosin-hæmatoxylin are of irregular

form, some lengthened, some constricted in the middle, others star-shaped, the latter dominating.

This region is of 320 micromètres thickness. In one section a round space of 24 micromètres is seen in the middle of the stratifications of polyhedral cells, clothed with epithelium, similar to that of the deeper layers of the mucosa. This space is due to a transverse section of one of the dermic prolongations. There are sixteen rows of these polyhedral cells in the thickest portions.

Section of the first nodule. Several layers of thickened epithelium; at the periphery, cornified epithelium; below, a zone of flattened cells, closely nucleated; under this, lozenge-shaped polyhedral and cylindrical cells. The basic membrane forms a pale rosy line between the epithelium and the dermic projection of papillary appearance. Vesicle, obj. 2, oc. 3.

4. Two layers of cylindrical cells, in which no migratory cells are observed.

5. A basement membrane, rose coloured, sixteen micromètres thick.

The chorion in two sections has a thickness of about three-tenths of a millimetre. It is composed of young connective tissue, rose coloured, without apparent fibrous bundles, presenting numerous lacunæ, and dotted over with tissue cells, 8 to 12 micromètres long. Below the basement membrane are some round cells of embryonic type, not disposed in masses. No vessels are visible in the chorion, which forms prolongations of papillary appearance. Three of these pseudo papillæ are seen; two sections, 16 to 32 hundredths of a millimetre long, and 8 to 20 hundredths of a millimetre broad.

Most sections contain only various layers of proliferated epithelium, with the same distribution and characters as above, without trace of chorion. In some the cornified layer measures up to 80 micromètres.

We have to deal, therefore, only with a thickening of the stratified pavement epithelium of the vocal cord, with isolated prolongations, and hypertrophy of the chorion, the papillary prolongations being destitute of vessels.

There are neither epidermic globes, nor glandular *cul-de-sacs*, nor follicles.

The second nodule.—This is only a hyperplasia of the mucous membrane limited to the zone of polyhedral cells.

The third nodule presented essentially the same features as the other two.

Shows three thickenings of the epithelium resulting from hyperplasia of the polyhedral and cylindrical cells; the fibro-elastic chorion, deprived of vessels, does not show the papillary undulations so well marked on the healthy portions of the mucosa.

III.

These results agree with those obtained by Kanthack ("Monats. für Ohrenheilk.", 1889). He noticed in three cases of singers' nodes histologically examined—in one, simple hyperplasia of the epithelium and fibro-elastic tissue, inequality of the surface, hyperkeratosis, and prolongations into the chorion.

In the second the epithelium was not thickened, but was keratinized, and presented projections like lingual papillæ, but smaller. Papillary projections appeared on the vocal cord round the nodule, and there was embryonal infiltration of the chorion below the basement membrane. The thick masses of elastic fibres were distended in places by round cells, and there were two or three spaces filled in the living subject probably with serous fluid.

In the third case there was considerable hyperplasia of the epithelium, the upper layers of which were cornified, and the prolongations limited; in the derma were well-developed papillæ, but oftenest devoid of vessels and constituted by a mucoid stroma rich in round cells. Kanthack never found any glands present.

Fraenkel¹ attributes these nodules to glandular origin.

Coyne² and Kanthack³ have shown that glands are not met with towards the free edge of the vocal cord. Singers' nodes cannot be caused by tumefaction of glands.

According to Stoerk⁴ the nodules are oftenest formed of connective tissue, of elastic fibres, and proliferated epithelium.

Schroetter⁵ thinks them to vary, and their nature is not sufficiently

¹ Fraenkel: "Berliner Klin. Woch.", Oct. 22, 1889, page 941.

² Coyne: "Recherches sur l'anatomie normale de la muqueuse du larynx, etc." Th. de Paris, 1874.

³ Kanthack: "Studien über die Histologie der Larynx Schleimhaut." "Virchow's Arch.", 1889, Band 118, page 136.

⁴ Stoerk, cité par Wagner, "Des Nodules des Cordes Vocales" (Rev. Trans. de Laryngol., d'Otol. et de Rhinol., 1883).

⁵ Schroetter, "Vorlesungen über die Krankheiten des Kehlkopfes der Lufttröhre, &c." Part 2, 1887, and Part 5, 1891.

determined, owing to absence of histological examination. They are proliferations of epithelium, or hypertrophy of papillæ.

Ought they to be related to the condition described by Tüerck⁶ as chorditis, or trachoma of the vocal cords, which consists of a thickening due to small confluent tumours caused by hypertrophy of the chorion and epithelium?

Wagnier⁷ relates them to this condition. The author's researches show these nodules to be due to limited hypertrophies of the epithelium and mucous chorion: sometimes one, sometimes the other predominates, generally both take part in the thickening. The epithelial thickening is the more evident since this layer is usually only extremely thin, according to Heymann⁸ measuring only 23 to 26 perimètres.

December, 1892.

Contribution to the Study of Nasal Hydrorrhœa. By Dr. LICHTWITZ (of Bordeaux).

The term "hydrorrhœa" was employed by Bosworth in 1889 to designate a curious nasal affection, of which the most conspicuous feature is an abundant and watery flow. It differs from hay fever in occurring at any season and presents a certain degree of periodicity. It is a very rare complaint. Bosworth recorded eighteen cases, two being original.

Many of these cases are, however, incomplete (Rees, Forster, Elliotson) failing nasal examination, and others do not merit this classification, one appearing to be a simple chronic empyema of the antrum (Davies). It is difficult to include many of the other cases under this heading. Thus in Vienosi's case the aqueous flow was due to fracture of the skull, and in Althaus's case it was accompanied with paralysis of the fifth nerve. Bosworth's deductions drawn from these cases, as to etiology, appear to be confused. In the cases which remain (J. Paget, Tillaux, Fischer, Speirs, Leber, Nettleship, Priestley Smith, Baxter, Mathieson, and Bosworth's own two cases) there is scarcely any agreement as to etiology. The same applies to Hardie's two cases and to Anderson's case.

Although the symptom common to all, viz., hydrorrhœa, does not suffice to create a morbid entity, the author keeps the title in the absence of explanation of the etiology and pathology of the affection.

After a critical examination of the recorded cases the author relates a case of *Hydrorrhœa accompanied with multiple nervous phenomena, having existed twenty-nine years, with considerable improvement after puncture of the right frontal sinus, followed one year later by complete cure after the elimination spontaneously of very abundant gelatinous matter from the nasal cavities.*

The patient, who was a woman of fifty-one years of age, had been afflicted since infancy with secretion of mucus, which fell into the naso-

⁶ Tüerck, Klinik der Krankh. des Kehlkopfes, Wien, 1866.

⁷ Wagnier, *loc. cit.*

⁸ Heymann, "Beitrag zur Kenntniss des Epithels und der Drusen des Men., Kehlkopfes, &c." Virchow's Archiv, 1892, Band 115, 2.

pharynx, and for twenty-nine years with a feeling of oppression in the nose and profuse flow of watery fluid, the attacks being accompanied with sneezing, lachrymation, and photophobia. For seven years she had also suffered intense pain at the root of the nose, over the right frontal and parietal bones, pains which were awakened on the least movement. There were also itching sensations over different regions of the body, a great difficulty in opening the eyes after sleep, a kind of transient hemianopsia, and some convulsive attacks with loss of consciousness. All these symptoms were greatly improved by puncture of the right frontal sinus, and completely disappeared one year later after the spontaneous elimination through the nasal fossæ and naso-pharynx of a great quantity of gelatinous liquid.

The questions presenting themselves from a consideration of this case are—

1. Whence proceeded the abundant aqueous flow, and what was its cause?
2. To what affection was the mucous secretion due which poured backwards in the interval of the attacks of hydrorrhœa?
3. How could puncture of the right frontal sinus succeed in producing amendment, and elimination of the gelatinous mucus complete disappearance of the symptoms?

The most plausible hypotheses would seem to be the following:—

1. The aqueous flow was not due to cephalo-rachidian fluid, but had a nasal origin. In support of this view is the fact that when the patient had these attacks, each was accompanied with other symptoms met with in a variety of nasal affections, such as sneezing and lachrymation. The aqueous flow was further transformed, on the fourth day of the attack, into mucous liquid, for which one could give no other origin than a nasal. The attacks resembled those of hay fever, except that they were irrespective of season and external cause.

The fluid has not been collected and examined because since the author first saw the patient the attacks have been rarer and less severe, except the last one, which ended in extrusion of gelatinous mucus. The fluid probably resembled that met with and examined by other authors. Tillaux and Leber believed it to be cephalo-rachidian, but did not bring forward sufficient proof of this assertion. Tillaux did not perform an autopsy of his patient, and it is not proved that the ablation of the nasal polypi could have caused a perforation of the cribriform plate of the ethmoid, through which the liquid could have escaped. Leber based his opinion on a chemical examination of the liquid, and added that it was scarcely probable that a liquid of such composition and abundance could come from the nasal mucous membrane.

A nasal mucosa, apparently healthy, may, however, furnish very abundant secretion—it is seen in hay fever. The other authors admit the nasal origin of the aqueous flow.

The author shares Bosworth's opinion that the secretion is due to vaso-constrictor paresis of the mucosa of the nasal fossæ and sinuses, and that it is probably reflex due to a cause generally in the accessory sinuses, and, in the author's case, in the frontal sinus.

2. The mucous secretion was due to a catarrhal affection of the right frontal sinus, probably dating before the appearance of hydrorrhœa, and probably caused by the development of a cystic tumour in the cavity. Since the patient's youth she had continually spat mucus, which had fallen into the back of the throat, especially when the head was held backwards. When aged twenty-two the attacks of hydrorrhœa had appeared ; the secretion of mucus had persisted in the intervals and become very abundant, especially since the advent of cephalalgia and other nervous affections. An examination of the nose and retro-nasal space failed to discover anything explaining the oppression of the root of the nose and the pains which the patient localized in the frontal sinus. Puncture and irrigation of the frontal sinus led to immediate alleviation, which the patient had not experienced for twenty-nine years. In a similar case, the history of which is appended, a constant secretion flowing into the retro-nasal space, and a frontal and temporal cephalalgia had persisted for twelve years, and disappeared after one exploratory puncture and irrigation of the frontal sinus. The attacks of hydrorrhœa after puncture became very rare, and at the end of a year, after a severe and long attack of hydrorrhœa, a great quantity of gelatinous, yellow mucus was suddenly discharged through the nares and posterior nares. It resembled what is met with in cystic tumours, and the author believes such a growth to have been situated in the frontal sinus or, perhaps, in the anterior ethmoidal cells communicating with the sinus.

3. The existence of such a cystic tumour would explain the nervous symptoms (feeling of weight, catarrh, attacks of hydrorrhœa, with sneezing and lachrymation) which existed at the first onset of the disease and those which arose later, perhaps due to the growth of the cyst (pain and throbbing in the forehead and transient hemianopsia). It is also intelligible how irrigation led to amendment, and why complete cure supervened after spontaneous rupture of the osseous or mucous wall of the cyst. Undoubtedly the patient is neurasthenic, and this has been the predisposing cause of the symptoms, but the determining cause has been the lesion of the frontal sinus.

The author does not wish to generalize too widely from this simple case as to the etiology of other cases of nasal hydrorrhœa, which is probably different in individual cases, but believes it necessary in each case of nasal hydrorrhœa to direct attention to the different accessory nasal cavities. These cavities, in his opinion, give rise oftener than the nasal cavities to reflex troubles. When the etiology and pathogeny of the disorder is better known the name of nasal hydrorrhœa will serve to distinguish not a morbid entity, but merely a symptom common to various affections.

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ANNOTATIONS.

ON THE ETIOLOGY OF MALIGNANT DISEASE.

No theory regarding the causation of malignant disease is attracting more attention at present than that of its parasitic origin. As Dr. Galloway puts it in the last Morton lecture, the suggestion of such a cause has been dwelling more and more in men's minds ever since Sir James Paget referred to it as a specific disease comparable in many respects to the class of diseases to which syphilis, tuberculosis, leprosy, glanders, and actinomycosis belong. The frequent occurrence of this disease in the upper respiratory tract will naturally cause those practising the specialty of laryngology to consider any evidence for or against the view. No doubt the views at present held as to irritation, say in the form of inflammation, being often associated with or preceding the appearance of the malignant tissues themselves, are constantly being brought before us, but most thinkers are not satisfied with this explanation, and have been searching for some other element in the etiology. For example, the question often arises, Why should some parts of the body which are subject to inflammation or irritation not be so often affected as others? In our own department this is seen in the case of the nose, for although malignant disease is by no means unknown there still its frequency in comparison with that in the lips, tongue, and larynx must strike every careful observer. The comparatively small part which endo-laryngeal operation plays as a factor in the production of malignant disease was well brought out in the elaborate statistics placed before the profession by Dr. Felix Semon in 1888.

Many questions will naturally suggest themselves as the outcome of the present thought about the protozoa being considered parasitic, and

the experiments which have been recently carried out to show that injections of these may fail to produce the disease, while feeding animals with the organisms at the proper stage of their life-history is successful, must be carefully borne in mind. That the alimentary tract seems to be the best situated for the introduction of the spores is well worth noticing, and one cannot help reflecting upon the number of cases constantly to be seen in our clinics where irritation, say in the lip, or a herpetic eruption on the tongue, or an excoriation of the fauces, has preceded the formation of tumour in this situation.

Of course, suggestions will naturally arise on the other side of the question, such as, Do not some tissues more successfully resist the introduction of matters than others, quite apart from their anatomical situation? All such questions must, at present, be speculative. Nevertheless, the works of Leuckart, Pfeiffer, Balbani, and others are worthy of our careful scrutiny and observation. It seems quite clear, for example, that affections in rabbits associated with the formation of tumours are due to the entrance of protozoa, whose life-history is divided into a stage outside and another inside of the body; that structures hitherto designated by other names, and looked upon from a totally different standpoint, are to be found in malignant disease.

We have satisfied ourselves that with careful preparation of specimens certain forms can be detected in malignant diseases, like those described by Ruffer, Walker, and Soudakewitch, and we may have something more to say about these in another number of the Journal. The recent papers by Drs. J. Jackson Clark and James Galloway have placed the profession in a favourable position for further observation, both clinically and microscopically.

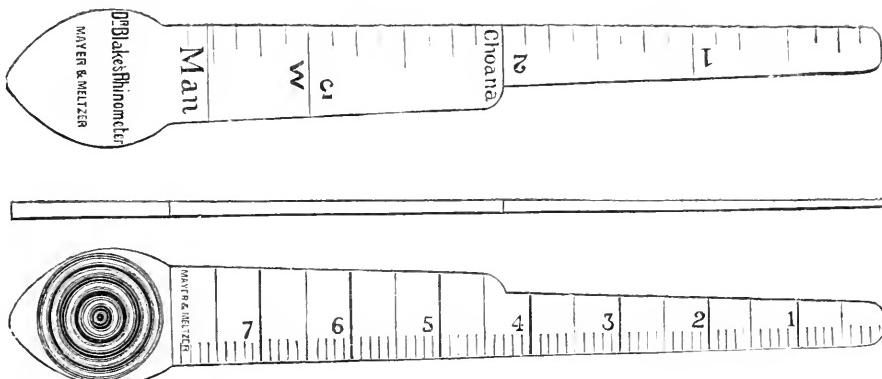
There is, perhaps, no region in the body where more can be done in the way of careful observation at the early stages of these diseases than in the upper respiratory tract, and it becomes every observer working in our special department to try what he can, both by clinical and microscopic evidence, to help in the elucidation of this very important question. Confirmation of the presence of the parasites must be got, but, of course, the great question before us is, How are cultivations and experiments to be carried out so that the tests applied by Koch in other cases of parasitic affections may be applied in this?

THE RHINOMETER: A Naso-Pharyngeal Sound.

By EDWARD BLAKE, M.D.

THIS simple little instrument consists of a tapering spatula of metal. Readily introduced into the nostril, it serves to diagnose rapidly the various obstructive diseases of the naso-pharynx. Measuring about four inches in length, and only half-an-inch in width, it can be carried easily in the waistcoat pocket. In these days of countless and cumbrous appliances, portability is in itself no mean recommendation; besides this, the nasal sound is always at hand. The method of use is as follows: Ten minutes after spraying the carefully cleansed nostrils with a solution consisting of ten grains of boric acid, five grains of chloride of sodium,

twenty-five grains of muriate of cocaine, to one ounce of menthol water, the rough part of the sound is grasped lightly between the finger and thumb. The smaller end is then passed very gently along the floor of the suspected nostril, carefully preserving the horizontal position. A rounded shoulder indicates when the choana is reached. It is well to keep the sound parallel with the vomer, but not touching it. The septum readily bleeds, even in health, and, owing to its free nerve supply, it is exquisitely sensitive.



When the posterior nares are passed, and the sound enters the pharynx, its course should be turned outwards to the Eustachian orifice. If at this point its passage be obstructed and the tip return stained with blood, then Eustachian adenoids are probably present. An engraved line indicates when the posterior pharyngeal wall ought to be reached ; this point varies, of course, with age and with sex. The smaller end of the instrument is now raised by depressing the handle. A doughy sense of resistance suggests the presence of adenoid hypertrophy of the pharyngeal tonsil at the roof of the vault. The existence of a neoplasm here is further confirmed by blood stains on the tip of the probe. The point should be withdrawn very slowly along the cribriform plate in order to detect the presence of deviating septum, fibroma, exostosis, hypertrophic rhinitis, polypus, or septal bridge. The instrument, which was introduced horizontally, is withdrawn in a vertical position. It is evident that the tip should, whilst in the nose, describe 90° of a circle. Owing to the taper edge of the sound, it serves not only to diagnose abnormal pressure on the Vidian branches, on the naso-palatine (nerve of Cotunnius), or on the olfactory filaments, but it gives a rough approximation to the amount of pressure exerted. Besides its more ostensible use, this handy probe being divided into small parts of an inch and of a centimètre, provides for strict and accurate measurements, so often needed by the surgeon : when reversed, it makes a capital tongue depressor, and is in addition a convenient paper cutter. The use of this instrument, it will be quite understood, is not intended to supplant nasal illumination, but to supplement it, and to sift out the cases that call for visual examination. The solution of cocaine would, of course, be much weaker in the case of a child, viz., 1 to 2 per cent.

NEW INSTRUMENTS, THERAPEUTICS, DIPHTHERIA, &c.

Pearson. Yelverton (Cork).—*Tongue Forceps.* “Lancet,” Dec. 31, 1892.

THIS instrument, shaped something like dressing forceps, has flat plates at the ends of the blades. These are covered with india-rubber and the lower one is notched so as to receive the faenum. There is a catch at the other end.

Dundas Grant.

Schitz (Mannheim).—*Pharyngal Tonsillotome.* “Munchener Med. Woch.” 1892, N. 4, 39.

THE author has devised a tonsillotome similar to the instrument of Fahnestock, with which it is possible to extirpate the pharyngeal tonsil. It has the necessary curvature for introduction into the naso-pharyngeal space. The author has also invented a compressor of the same form, which can be applied in cases of after bleeding. If the tonsillotome cannot be used to extirpate the whole mass, the author extracts the lateral portions by Michael's forceps.

Michael.

Dunn, John (Richmond, Va.)—*A Modified Hartmann's Snare.* “Med. Rec., Sep. 24, 1892.

THIS instrument has the advantage of being made with flattened canulae, so that the twisting of the wire, so annoying in the use of round canulae, is avoided. There is a good snare for the lingual tonsil. The instrument can be worked by finger traction, or by a screw rider on the handle.

Dundas Grant.

Heryng (Warsaw).—*Electrolysis and its Application in Diseases of the Nose and Pharynx, and its Use in Laryngeal Tuberculosis.* “Therap. Monats.,” Jan. and Feb., 1893.

RECOMMENDATION of the method.

Michael.

Muralt.—Gesellschaft der Aerzte des Canton Zurich. Meeting, May 17, 1892.

THE author showed modified instruments for intubation. *Michael.*

Baer (Zurich).—*Tracheotomy and Intubation in the Children's Hospital at Zurich, 1874-1891.* “Deutsche Zeitschrift für Chirurgie,” Band 35, Heft 3 and 4.

A VERY extensive treatise with many statistical and casuistical reports. It is not possible to review it shortly because the principal value of the treatise is the description of the great material. The author concludes that both operations must be performed, and have their special indications, and that intubation is a very useful method which gives very satisfactory results.

Michael.

Bungner (Marburg).—*After-Treatment of Tracheotomy, and Description of a New Canula.* “Verhandlungen der 21 Chirurgencongress,” page 171.

BY means of a little obturator the anterior opening of the canula can be

closed gradually, so as to accustom the patient to the passage of air by the natural channel.

Michael.

Kantorowicz (Forst).—*Therapeutic Value of Gargling.* “Deutsche Med. Zeitung,” 1893, No. 10.

THE gargling, if too often applied, is an irritant of the mucous membranes and the muscles of the pharynx. The deeper parts of the mouth and the tonsils are not reached by the fluid. The application of antiseptics is without any effect. Only water or salt solution without antiseptics should be employed, and these only rarely.

Michael.

Gleeson.—*Antipyrin as a local application in Inflammation of the Mucous Membrane of the Upper Respiratory Tract.* “New York Med. Journ.,” Oct. 29, 1892.

IN 1889 the author contracted an obstinate laryngo-tracheitis. Benzoin inhalations gave a little relief. Sprays of ipecacuanha wine relieved congestion, but produced vomiting. A spray of cosmoline even irritated the sensitive larynx. Powders were absolutely painful and irritant. Nasal stenosis and discharge was checked by four per cent. cocaine on a pledget of wool, and maintained by a spray of four per cent. antipyrin. Great relief was experienced from this treatment used at night. The antipyrin was then inhaled into the larynx from eight to twenty times a day, and within a week all signs of laryngeal and tracheal disease disappeared.

The analgesic power of antipyrin lasts for some hours when locally applied to a mucous membrane. It is also anti-spasmodic, diminishing reflex cough and asthma of nasal affections, gagging and retching in pharyngitis. It is also antiseptic.

Antipyrin in spray at first causes burning (and sneezing if applied to the nose), analgesia soon follows and lasts for hours, and may be maintained by frequent sprayings with weak solutions.

Four per cent. solutions are too irritant to an inflamed Schneiderian membrane without previous application of cocaine. One to three per cent. solutions are strong enough. To the inflamed pharynx powdered antipyrin or a concentrated solution in spray may be applied, giving immediate relief. The same strength may be applied to the larynx. Momentary burning pain is replaced by analgesia. The author has used the drug in various inflammatory conditions of the larynx, and he has found it affords great relief in several advanced cases of tubercular laryngitis and in specific conditions. His experience leads him to the conclusion that the drug is a good local analgesic and antispasmodic, whose effects can be maintained for a long time if applied at sufficiently frequent intervals, and its continued use seems to be followed by permanently beneficial results.

R. Norris Wolfenden.

Heflebower, B. C.—*Sodium Tetraboricum Neutral in Chronic Suppuration of the Middle Ear.* “Cincinnati Lancet Clinic,” Jan. 14, 1893.

THE author speaks favourably of the employment of this compound in cases of suppurative otitis media. It is prepared by treating together equal parts of borax, boracic acid, and water. The solid result is the

neutral tetraborate of sodium. Of this a sterilized saturated solution is prepared. The method of application is as follows :—The ear is first thoroughly syringed with warm water and cleansed in the most thorough manner, after which it is dried with a cotton-armed probe. The solution is then warmed and poured into the ear until it is quite full, and is allowed to remain *in situ* for from five to ten minutes. It is then allowed to run out, and a plug of wool saturated in the solution is placed in the meatus. A record of several cases is given, in which the employment of this preparation was followed by gratifying results. *W. Milligan.*

Adamkiewicz (Krakau).—*Observations on the Effect of Cancroin, with Remarks.*
“Wiener Med. Woch.,” 1892, Nos. 41, 42, and 93.

ADAMKIEWICZ, notwithstanding the contradictions of his colleagues in Vienna, always affirms that his “cancroin” has an influence on cancers. He now refers to some observations by other authors agreeing with his own views. Of these cases, which under this treatment were improved, were (1, 2) carcinoma labii inferioris, (4) carcinoma linguæ in a physician, who wrote that he believed it to be undeniable that the tumour and the swollen glands suffered a reaction, and that after interruption of the treatment the progress of the disease was diminished ; (5) carcinoma mammae. We will only refer to case 3, viz., carcinoma laryngis, as to which Piniazek reported : Carcinomatous infiltration of the ary-epiglottic fold, arytenoid cartilage, and ventricular band of the right side, causing stenosis of the glottis ; no inflammatory condition. After injection of cancroin, inflammatory swelling of the diseased parts followed, with increase of the stenosis. With further injections fresh inflammations occurred, followed by severe suppuration of the larynx. Prof. Piniazek says that he never saw, either spontaneously or as an effect of treatment, similar supurations. The author concludes that his treatment has a real effect on canceroids.

Michael.

Gottstein.—*Contagiousness of Diphtheria.* Hufeland'sche Gesellschaft zu Berlin, Meeting, Jan. 12, 1892.

DIPHTHERIA is not very contagious, and this is only observed when the bacilli are of unusual virulence. *Michael.*

Hagedorn (Hamburg).—*Galvano-Caustic Treatment of Diphtheria.* “Aerzte Practiker,” 1892, No. 6.

SEE the report on the author's paper read in the Aerzte Verein in Hamburg on the same subject. *Michael.*

Leonhardi.—*On Croup, Diphtheria, and Scarlet Fever.* “Volk. Sammlung Klin. Vorträge,” N.F., No. 55.

THE author believes that an inflammatory and not a contagious croup exists. He treats it, if there is great fever, by calomel and leeching. To feeble children he gives an emetic and warm drinks and expectorating drugs. As to true diphtheria, he states that the incubation lasts five days.

He does not apply caustics or antipyretics during the first few days. Internally he administers bicarbonate of soda, and gives gargles of chlorate of potash.

Michael.

Editorial.—*On the Spread of Diphtheria*, “*Brit. Med. Journ.*,” Jan. 7, 1893.

THIS, the third article on the subject, traces the history of the steps which lead to the discovery of the connection between the bovine disease and human diphtheria. The former is indicated by a vesicular eruption on the udder of newly-calved milch cows, in which the diphtheria bacillus was found. The indication is, therefore, to boil the milk—a process which does not materially interfere with its nutritive value. The author points out that new preventive measures must be directed against the bovine disease, unhealthy cowsheds discountenanced, and notification of disease in milch cows enforced. On this follows the arrest of the sale of milk, for which additional and logical legal enactments are required. As the law stands, if one animal contaminates another the law steps in; if an animal infects man it is powerless, the milk supply being only capable of being stopped when it can be proved that man himself has communicated to it the infection. The possibility of infection from other domestic animals is considered.

Wm. Robertson.

Gläser (Hamburg).—*Some Remarks on the Identity of Diphtheria Laryngis and Croup; and Relation of Two Cases of Diphtheria Laryngis*. “*Zeitschrift für Klin. Med.*,” Vol. xxi., Nos. 3 and 4.

THE author believes in the existence of primary laryngeal croup, without relation to diphtheria. In some cases the pharyngeal affection is already cured when laryngeal croup begins, and in such cases diphtheritic croup can be mistaken for an original croup. He then relates two cases: (1) A man, twenty-one years old, had pharyngeal diphtheria which was cured. Some days later death occurred from nephritis and bronchitis. The *post-mortem* examination showed membranes to be present on the epiglottis, in the trachea and bronchi. In these membranes Loeffler's bacilli were found (E. Fränkel). (2) A patient, eleven years old, with the symptoms of laryngeal croup and emphysema of the neck. Tracheotomy was performed; death by nephritis followed. In this case also bacilli were found in the membranes (E. Fränkel).

Michael.

Siegfried, C. A. (Newport, U.S.A.).—*Some Observations on the Etiology and Treatment of Diphtheria*. “*Med. Rec.*,” Nov. 26, 1892.

SURGEON SIEGFRIED reviews the most important investigations recently made into the nature of this disease. He considers that probably not over twenty per cent. of the cases reported as diphtheria are really such. He dwells on the necessity of procuring a bacterioscopical diagnosis, if it is possible to do so, and describes Baginsky's observations. The cardinal points are, early correct diagnosis by a competent pathologist, cleansing by means of weak solutions, followed by the application of more direct and concentrated ones (of perchloride of mercury, etc.), stimulating the patient. In the very young he uses sprays by the nostrils, and keeps up the strength by means of brandy and milk, and lime-water. The ice-

pack locally he considers very soothing and beneficial. As a spray he likes the sesquichloride of iron. He states the difficulty as to notification, removal, etc., in the inevitable doubtful cases. *Dundas Grant.*

Schilling (Querfurt).—*Treatment of Diphtheria.* “Aerzte Practiker,” 1892, N. 17.

THE author recommends fomentations, gargling with boric acid, and internally chlorate of potash. In grave cases, cataplasms and sucking, etc. In cases of stenosis, inhalations of five per cent. lactic acid.

Michael.

Neumann (Berlin).—*Treatment of Diphtheria.* “Berliner Klinik,” June, 1892.

THE contents are nearly the same as those of the report on diphtheria in Friedrichshain Hospital, read in the Berliner Klin. Gesellschaft (see report.)

Michael.

Hubner (Frankfurt-a-Main).—*Treatment of Diphtheria by Liquor Ferri Sesquichlorat.* “Therap. Monats.” Dec., 1892.

THE author has employed this treatment in many cases with satisfactory results.

Michael.

Rosenthal (Berlin).—*Treatment of Diphtheria by Liquor Ferri Sesquichlorat.* “Therap. Monats.” Dec., 1892.

THE author describes the application of the method with good results.

Michael.

Neumann.—*Communications on Diphtheria at Friedrichshain Hospital.* Freie Vereinigung der Chirurgen in Berlin, Meeting, Jan. 2, 1893.

DURING the last eight years two thousand six hundred and fifty-six cases of diphtheria have been admitted to the Hospital Friederichshain. One hundred and eighty-eight of these have been only angina follicularis. The author believes that so long as bacteriological examination cannot be made more quickly than at present it is impossible to isolate patients in the hospitals. It is also not necessary, because only in exceptional cases could infection in the hospital be proved. During the last two years no drug treatment was instituted, and the results are very favourable, viz., sixty-four per cent. cures. Of the tracheotomized cases there were forty-six per cent. cures. Usually inferior tracheotomy is performed. After-treatment with inhalations is employed. In most cases removal of the canula is effected on the sixth day. The author prefers the inferior operation, because here the difficulties of removal of the canula do not occur so frequently—only in one per cent.—while in superior tracheotomy it is nine per cent. In cases of sepsis tracheotomy must not be performed, since in these cases the children do not die from stenosis, but from sepsis.

Michael.

Schmorl.—*Diseases of the Lymphoid Glands in Diphtheria.* Medicinische Gesellschaft in Leipzig, Meeting, Nov. 8, 1892.

IN many cases of diphtheria Loeffler's bacilli were found in the inflamed glands. In other cases streptococci were found. Mixed infections of the

diphtheria bacillus and streptococci are often observed in cases of the disease.

In the discussion CURSCHMANN remarked that the prognosis depends upon the state of the heart. He doubts the efficacy of local disinfection. In the first stage of the disease we sometimes find fatty degeneration of the heart, and dilatation and weakness caused by the local impediment to breathing; in the second period is observed myocarditis diphtheritica with its well-known symptoms. Disturbance of the heart also may be caused by affection of the cardiac nerves.

TAUBE recommends pyoktanin.

HEUBNER does not believe that we can definitely differentiate the heart affections of the two stages. *Michael.*

Schwartz (Constantinople).—*Treatment of Whooping Cough.* “Internat. Klin. Rundschau,” 1893, No. 12.

RECOMMENDATION of nasal insufflation of sozoiodol. *Michael.*

Guttmann (Berlin).—*Insufflation of Iodium Sozoiodol in the Nose for Whooping Cough.* “Therap. Monats.,” Jan., 1893.

RECOMMENDATION of this treatment. *Michael.*

MOUTH, TONGUE, PHARYNX, ETC.

Garrigues, H. J. (New York).—*Stomatitis due to Irritation of Epithelial Pearls in the Mouth of New-born Children.* “Med. Rec.,” Oct. 1, 1892.

A SMALL epidemic of superficial ulceration of the palate of new-born children, in Maternity Hospital, was the occasion of a careful examination of all the babies, fifty-two in number; forty-nine of these had congenital epithelial pearls on the palate. The first twenty-seven children had their mouths washed out immediately after birth, and after each nursing, with the velvety side of a piece of lint soaked in a saturated solution of boracic acid. Of these, twelve had a more or less sore mouth, the ulceration always beginning at the epithelial pearls. In the last twenty-five cases no washing was done, and not a single one of these got a sore mouth.

The epithelial pearls are small, white, globular tumours of the size of a pinhead to that of a millet-seed, situated in the raphé of the palate, preferably at the juncture of the hard and the soft palate. They are one to five in number. The outer surface is hard, the inner part softer. They are embedded in the mucous membrane. Most of them are covered with a layer of condensed connective tissue. Instead of the round prominence there is sometimes a white line, half an inch long, in the raphé. The mass is composed of epithelial cells like those of the mucous membrane of the mouth. The outer layers are the youngest, having polyhedral form and a nucleus; those near the centre are flat, and have lost their nucleus.

Similar formations are sometimes found on the free edge of the alveolar process.

Epithelial pearls are not retention cysts, formed by occlusion of glands, but are due to inclusion of parts of the epithelium of the mouth. They are found as early as the eighth week of foetal life and disappear in healthy children at the end of the second month after the birth of the child. In badly nourished children they persist longer. They are found in that particular place because the palate is formed of two lateral projections, which gradually unite in the median line, from the front backward. On the alveolar process their existence is probably due to the growing together of the walls of the dental furrow over the germs of the future teeth.

Diagnosis.—Bednar's aphthæ are similar superficial ulcers, but begin laterally on the place corresponding to the hamular process of the sphenoid bone, and are usually bilateral. Sprue forms white spots, is never congenital, and attacks any part of the mouth irregularly.

Treatment.—The epithelial pearls, being physiological, should not be interfered with. If the mouth is washed out at all it should be done with plain water, a soft, smooth rag, and with great care, so as not to wound the epithelium. If stomatitis sets in by rubbing off the pearls, the best treatment of the ulcer is to swab it with water acidulated with a few drops of acetic acid, and then paint it with borax glycerine (3*l*.—*3j.*). It heals in a week or two.

Dundas Grant.

Hadden (London).—*Extreme Defect in Speech.* “*Brit. Med. Journ.,*” Feb. 4, 1893.

This occurred in a boy, aged six, who was intelligent, had no local defect of the mouth, etc., and was not deaf. He could pronounce labial and dental sounds, but gutturals and sounds from the back of the throat he was unable to pronounce. Dr. Hadden observed that these cases were usually curable by training. “*Idioglossia*” was suggested as a name for the disease.

Wm. Robertson.

Riehl.—*Angioma of the Tongue.* Gesellschaft der Aerzte in Wien, Meeting, Jan. 27, 1893.

CASE exhibited.

Michael.

Fox, Hingston (London).—*Chronic Hypertrophic Inflammation of the Gums with Leucocæsis.* “*Brit. Med. Journ.,*” Feb. 4, 1893.

A MAN, aged twenty-four years, had gingivitis of several months' standing. There was caries of several teeth. The white cells of the blood were greatly increased in proportion to the red, as much as one to eight of the red. Spleen enlarged. No history of mercurial treatment, imperfect diet, or hæmophilia. The term “*pyorrhœa alveolaris*” (Rigg's disease) has been applied.

Wm. Robertson.

Griffin, Harrison (New York).—*Chancres of the Mouth.* “*Med. Rec.,*” Oct. 1, 1892.

A NUMBER of cases arising from the usual causes. The sores were generally painless, surrounded by swelling, but only ill-marked induration,

and with pronounced glandular enlargement. The situation was generally the lips, occasionally the tonsil, and in one case the under surface of the tongue.

Dundas Grant.

Fowler, Walter (Echuca).—*Perforations through the Anterior Pillars of the Fauces.* “Lancet,” Dec. 24, 1892.

SINCE his last communication (“Lancet,” Nov. 30, 1889, JOURNAL OF LARYNGOLOGY, Jan., 1890) he has seen a case of permanent perforation through one anterior pillar caused by the bursting of a tonsillar abscess.

Dundas Grant.

Piazza.—*On Periodic Angina.* “Annales des Mal. du Larynx, etc.,” Jan., 1893.

FROM a case recorded by the author he draws the conclusions—

1. A form of angina exists allied to febricula, which has not, up to now, been mentioned by anyone.

2. In the course of the febricula—an infection not at all malarial—a periodic, or similar to periodic, angina may occur.

Joul.

Seiffert (Würzburg).—*Syphilis of the Lingual Tonsil.* “Münchener Med. Woch.,” 1893, No. 6.

PRIMARY syphilitic affection of the lingual tonsil has not yet been observed, but secondary affections often occur. The author has observed in some cases in which the palatine tonsils were affected with erythema or by plaques the same affection of the lingual tonsil. All cases are cured by specific treatment.

Michael.

Gurowitsch (Odessa).—*Pathology of the Lingual Tonsil in relation to Angina Epiglottica and Glossitis Acuta.* “Berliner Klin. Woch.,” 1892, No. 44.

IN some cases, in their symptoms resembling acute angina, we do not see any inflammation of the pharynx and tonsils. The symptoms are caused by acute inflammation of the epiglottis and the lingual tonsil. The disease can be diagnosed upon depression of the tongue, or by the laryngoscope. The epiglottis, the valleculæ, and the lingual tonsil are red and swollen; sometimes the disease is combined with dyspnoea. Cure occurs in a short time in most cases. In rarer cases a phlegmonous inflammation of the lingual glands follows.

Michael.

Dobrowolski (Warsaw).—*The Lymphatic Follicles of the Mucous Membrane of the Oesophagus, Stomach, Larynx, Trachea, and Vagina in Man and the Lower Animals.* “Pam. Tow. Lek.,” 1892, Volumes 3 and 4.

UNDER the term “lymphatic follicles” the author understands a circumscribed agglomeration of leucocytes or cells similar to white blood corpuscles in a reticulum, having around them a lymphatic sinus, or in the centre a lighter space (Keimzentrum). In order to determine if there are in the mucous membrane of the oesophagus, and also of the respiratory tracts, such lymphatic follicles the author took refuge in a two-fold method of examination—i.e., preparation of the sections (in series) and isolation of the mucous membrane (coloration *in toto* with borax-carmín and subsequent examination). As to the oesophagus, the author examined

this in twenty-three cases in men and in eleven of animals. He found that in the oesophagus the follicles in general rarely appear for the most part in the superior half and on the anterior wall (along with papillæ and mucous glands : he therefore maintains that they do not belong to the normally constituted parts of the mucous membrane of the oesophagus.

Of the respiratory tract, the author especially occupied himself with the examination of the pyriform sinus. He stated that in general the papillæ and mucous glands are not numerous there. As to the follicles, the author regards the pyriform sinus in his cases (sixty) under four categories. In the first and the most numerous (almost half) cases there were no folliculi, only a circumscribed infiltration under the epithelium. In the second less numerous class the adenoid tissue under the epithelium contained nodular agglomeration similar to the follicles of the tonsils. In the third class the adenoid tissue appeared in the form of single sacciform glands, identical with those of the base of the tongue (Zungenbalgdrüsens). Finally, in the last class (eight cases) these glands (sacciform) were aggregated in the shape of the tonsil (tonsilla laryngea saccus, sinus pyriformis saccus, fifth tonsil). This latter was present in six cases on both sides—generally at the bottom of the pyriform sinus—and was more or less of the size of a bean. The tonsil was composed of four to fifteen sacciform glands. The author regards the laryngeal tonsil as a normal, though not constant, organ, similar to the lingual, pharyngeal, and faecal tonsils.

In general the basis of adenoid tissue, which in this or some other form constantly exists in the pyriform sinus, is the cause of the comparatively frequent follicular inflammation (catarrhal, tubercular, syphilitic, etc.). In the larynx, trachea and larger bronchi lymphatic follicles generally appear rarely, and in small quantities. In a quite healthy mucous membrane of the respiratory tract they appear very rarely, and that only in certain places (posterior surface of the epiglottis, plica ary-epiglottica, ventriculi Morgagni, and pars inter-arytenoidea). They are more frequent in chronic catarrhs, and then occur in the same places (laryngitis, tracheitis, and bronchitis follicularis saccus nodularis). One must not confuse laryngitis follicularis with glandularis (this latter being more frequent, acute, or chronic, and localized in the mucous glands).

As to the minute details of this extensive and very interesting paper, the work must be read in the original.

John Sendziak.

Brady.—*Notes on Foreign Bodies in the Pharynx and Larynx—with Cases.*

“Australasian Med. Gaz.,” Sept. 15, 1892.

THE author of this paper gives us a good deal of practical advice as to where to look for such foreign bodies, and how to remove them with finger-nail, pharyngeal or laryngeal forceps. Some successful cases are included.

B. J. Baron.

Marsh (Birmingham).—*Primary Syphilitic Sore on the Tonsil.* “Brit. Med. Journ.,” Feb. 4, 1893.

THIS occurred in a woman, aged forty-eight years, whose throat had felt troublesome for five weeks, and sore for some days. On the upper

aspect of the left tonsil there was a circular sore of the size of a shilling, the base of which was hard. Surface excoriated and superficially ulcerated on the posterior margin. A group of glands in the parotid region were enlarged and hard. Afterwards a copious secondary eruption, chiefly roseola, appeared. Both lesions disappeared under treatment.

Wm. Robertson.

Sendziak (Warsaw).—*Some Remarks upon the Use of the Galvano-Caustic Snare in Hypertrophy of the Tonsils.* “Rev. de Laryngol.” Feb. 13, 1893.

THE author prefers the cautery to the tonsillotome, especially in the adult, for fear of haemorrhage. He has never seen the least unfavourable secondary accident.

Joel.

Sendziak (Warsaw).—*An Unusual Case of Sarcomata Multifilia Cucis et Lympho-Sarcoma Tonsille Dextra.* “Gaz. Lek.” 1892, No. 44.

A PATIENT, aged forty-eight, a peasant, came to the hospital complaining of a growth in the throat, as well as of numerous nodules on the skin. The disease had lasted half a year. The first symptom was a nodule upon the left leg; afterwards there appeared on the skin, especially of the upper half of the body, numerous dark nodules, and, lastly, they occurred in the throat. The nodules on the skin increased gradually, the growth in the throat impaired swallowing and respiration. No history of syphilis. On examination very numerous nodules of dark colour were found of variable size up to the dimensions of a hazel nut upon the skin of the superior extremities and trunk, and also a growth of the size of a large orange upon the left leg. In the throat the right tonsil was of the size of a hen's egg, and filled up the whole isthmus faucium.

The author fully extirpated the growth in the throat without any bleeding, by means of the galvano-caustic loop. Under the microscope the author found it to be lympho-sarcoma. One of the extirpated nodules of the skin proved to be sarcoma globo et parvicellulare. During his seven weeks' stay at the hospital, where he took only arsenic internally, the nodules of the skin began gradually but distinctly to diminish, so that at his leaving the hospital (at his own request) it was stated that the growth on the leg had diminished at least to one-third of its former size. Some of the nodules of the skin had entirely disappeared, leaving behind them blue coloration of the skin, and others were more or less considerably diminished. It is an exceedingly interesting case, the fourth recorded in literature, of the favourable influence of arsenic upon sarcoma (lympho-sarcoma) of the skin.

John Sendziak.

Eddison (Leeds).—*Fatal Haemorrhage from Varicose (Esophageal Veins).* “Brit. Med. Journ.” Feb. 4, 1893.

THE œsophagus was shown, the opening in one of the veins and the general varicose condition of the veins in the lower part of the œsophagus being easily seen. The patient was a man, aged sixty years, who had had syphilis when about twenty-five, and had drunk to excess since about his twentieth year. In 1890 he suddenly vomited about two pints of blood. He was repeatedly tapped for extreme abdominal ascites. He suddenly brought up several pints of pure blood, and passed some with the

stools, and died on the following day from exhaustion. The liver was contracted and misshapen. The veins in the lower part of the œsophagus were greatly enlarged, and there was a distinct opening in one, leaving no doubt as to the source of the haemorrhage. Stomach normal. Dr. Edison was of opinion that haemorrhage from the œsophageal veins was common, and that rupture of these veins was by far the most common cause of haematemesis, apart from ulcer of the stomach or other disease causing loss of substance. He had seen other cases of the same kind.

Wm. Robertson.

Sharpless, W. T.—*Three Cases from Private Practice.* “Med. News,” Dec. 17, 1892.

ONE of the cases was that of a man who had swallowed a plate of artificial teeth, which was minus the two teeth it had originally carried. Severe spasmodic pain was felt at the cardiac orifice of the stomach, and the passage of a soft stomach tube was arrested at this point. Copious emesis failed to dislodge the plate, and with a stiff œsophageal bougie it was pushed into the stomach with instant relief to the pain. The “potato treatment” was then adopted, and within forty-two hours from the time of swallowing it was passed per rectum. The plate was one and a half by one and a quarter by five-eighths inches in size.

R. Norris Wolfenden.

Rolleston, H. D. (London).—*Œsophageal Sarcoma; Secondary Growths in the Bones.* “Brit. Med. Journ.,” Feb. 11, 1893.

THE œsophagus had been perforated by the growth giving rise to abscess in the lung. The secondary growths were found to involve many of the ribs, the right iliac bone, and the middle fossa of the skull. The author had expected to find the growth a lympho-sarcoma, but it was not.

Mr. SHATTOCK observed that there was no reason for such an expectation, since the mucosa of the œsophagus was of the usual structure, while that of the stomach and intestine consisted largely of lymphatic tissue where the form of sarcoma found is a lympho-sarcoma. *Wm. Robertson.*

Brenner (Linz).—*Case of Œsophago-Tracheal Fistula and Stenosis of the Œsophagus.* “Billroth’s Festschrift,” 1892.

A CASE of congenital fistula and stenosis cured by two operations. The fistula could only originate from embryonic malformation. This is, however, not clear, because feeding for twenty years had been normal, and the fistula and the stenosis gave rise to the first symptoms in the twenty-first year of age. *Michael.*

Hacker (Wien).—*Statistics and Prognosis of Cauterization of the Œsophagus and its Consequent Strictures.* “Billroth’s Festschrift,” 1892.

IN ten years one hundred and thirty-one cases of cauterization of the œsophagus have been observed in Billroth’s clinic. One third of all cases died from intoxication. Most of the surviving cases were followed by stricture; one third of these also died from the consequences of the strictures. *Michael.*

Cordenwus.—*Case of Oesophagotomy.* “Journ. de Med. et de Chirurg. de Bruxelles,” Oct. 24, 1892.

A YOUNG girl had swallowed a case of false teeth, and this was arrested at the level of the cricoid cartilage. After all attempts at removal had failed an operation was performed, which resulted in recovery of the foreign body, and the patient shortly afterwards left the hospital cured.

Higuet.

Von Noorden (Breslau).—*Contribution to the Technique of Gastrostomy in Esophageal Stenoses.* “Berliner Klin. Woch.,” 1893, No. 2

DETAILS of the operation, only of surgical interest. Michael.

Ewald (Berlin).—*On Strictures of the Oesophagus, and a Case of Ulcus Oesophagi Pepticum, with consecutive cicatrical constriction, in which Oesophagotomy was performed. Report on Experiments on the Physiology and Pathology of the Stomach made upon a Patient with Fistula Ventriculi.* “Zeitschrift für Klin. Medicin,” 1892, Heft 4 to 6.

THE title indicates the nature of the communication. Michael.

NOSE, NASO-PHARYNX, &c.

Permewan, W. (Liverpool).—*The Relation of the Nose to Chronic Respiratory Disease.* “Liverpool Med. Chir. Journ.,” Jan., 1893.

AFTER insisting on the importance of the respiratory function of the nose, and referring to the observations of Aschenbrandt and Greville Macdonald on this point, the author discusses the causal relationship between nasal obstruction and chronic inflammatory disease of the larynx and bronchi. He suggests that as every laryngologist now examines the nose in treating a case of chronic laryngitis, so, in the future, the natural respirator, the nose, will be examined in all cases of chronic bronchitis.

The second part of the author's article deals with nasal disease as a cause of asthma. He summarizes the writings of Bosworth and Schmiegelow on the subject, and adopts the theory of Sée that an asthmatic paroxysm depends on spasm of the inspiratory muscles, with vaso-motor disturbance of the bronchial mucous membrane.

Middlemass Hunt.

Sendziak (Warsaw).—*Croup, or Diphtheria of the Nose.* “Gaz. Lek.,” 1892, Nos. 34 and 35.

THE patient, a physician, thirty-one years of age, when shaving was wounded by the razor on the right side of the chin. Some days afterwards general symptoms (fever and weakness) appeared, the wound became covered with a dirty exudation, and the lymphatic glands of the neck on the corresponding side were enlarged. A week after, when the general symptoms had almost entirely disappeared, acute catarrh occurred in the right half of the nose, with secondary formation of pseudo-membranes, which continued with status afebrilis to be formed during

two weeks. The patient recovered completely, with no complications during convalescence, and none of those who nursed him were affected. Bacteriological investigation of the membranes showed only staphylococcus pyogenes aureus : the inoculation of the microbe upon a guinea-pig gave negative results — *i.e.*, did not produce any symptoms of diphtheria.

Considering all the circumstances above recorded, the author solves the question comprised in the title in favour of croup. Besides the description of this case, the author occupies himself with the general question: *i.e.*, if croup in general, and croup of the nose in particular, exists as an independent pathological process, having nothing in common with diphtheria. In his long paper the author comes to the conclusion that it is so clinically, etiologically, and anatomically. *John Sendziak.*

Polyak (Buda-Pesth).—*An Undescribed Form of Coryza Professionalis.* “Berliner Klin. Woch.,” 1893, No. 1.

THE author has observed chronic coryza with swelling of the mucous membranes, ulceration, and in one case with perforation resembling the chronic acid affection in some workers in bronze. *Michael.*

Chaney, W.—*Hypertrophic Rhinitis.* Detroit Emergency Hospital Reports, Sept., 1892.

REPORT of an ordinary case treated by cauterization with nitric acid, with previous application of four per cent. cocaine. Nothing special.

R. Norris Wolfenden.

Bean, C. G.—*Nasal Hydrorrhœa.* “New York Med. Journ.,” Dec. 10, 1892.

IN many of the cases of nasal hydrorrhœa of which records exist, the exciting cause has been an injury to the base of the brain. In catarrhal subjects the disease is found, but this is evidently not a sufficient cause, as the proportion of cases of nasal hydrorrhœa to nasal catarrh is too small to make it a factor in its production. The onset of the disease is usually sudden. There is a copious watery discharge either constant or intermittent. In a certain percentage of cases there is conjunctivitis with frontal headache. On examination the mucous membrane of the nose is found pale and sodden, the tissues being full to saturation of a serous fluid, which exudes constantly upon the mucous surface. This oedematous condition extends to the posterior nares, and may even involve the palate. The disease is usually unilateral although not unfrequently bilateral. It occurs at all seasons of the year. The etiology is obscure, except, of course, in those cases due to trauma or to the presence of nasal polypi. It has been referred to paralysis of the trigeminal nerve, to myxomatous degeneration in the antrum, or to the presence of nasal polypi. It is usually associated with a neurotic temperament. As regards the treatment, the internal administration of antispasmodics gives the best results. After the acute attack has passed a general tonic treatment with iron, strychnine and quinine, together with cold baths and massage, is to be recommended. *W. Milligan.*

Tissier, P.—*Secondary Lesions of the Nasal Fossa in acquired Syphilis in Adults.*
“Annales des Mal. du Larynx, etc.,” Feb., 1893.

THE author has examined the nasal fossæ of twenty-five women presenting secondary cutaneous or mucous manifestations, and in seventeen cases (sixty-eight per cent.) he discovered nasal lesions. In seven cases there was erythematous rhinitis, and in eight cases erosive syphilis. Twice there was adhesion of the turbinates to the septum. In general, secondary lesions of the nasal orifice and vestibule tend to be moist, or are revealed under the form of projecting papules. Erythema of the mucous membrane is diffuse or limited, having a vermillion colour. It is nearly always unilateral. Erosive lesions occur by preference upon the septum. They are round or oval, having clear cut edges. *Joal.*

Thayer, O. V.—*Lupus Excidens; with History of a Case treated successfully by the Concentrated Rays of the Sun (Solar Cautery).* “Pacific Med. Journ.”;
“New Orleans Med. and Surg. Journ.” Nov., 1892.

AFTER some general remarks upon the subject of lupus, the author speaks of the advantages of the solar cautery, as being painless, easily controlled by the removal of the lens, and causing very slight inflammatory reaction. He records the case of a woman of forty with lupus of the nares, alæ, tip of the nose and upper lip, which extended over the right side of the nose one-half the distance to the eye, and down the lip near its margin. For two years the disease had been unsuccessfully treated by many methods. With a powerful lens, having a focal diameter of three lines, with a clear sky and unobstructed sunlight, the author thoroughly cauterized the diseased surfaces, destroying the morbid tissue in two minutes. The cauterization was not very painful. He has treated one thousand cases in this manner, a few of which complained of severe after-pain. The burned surfaces were dressed with zinc ointment, with absorbent cotton over, wetted in a five per cent. carbolic solution. The next day there was some swelling of the parts, redness of the adjoining skin, and tenderness. Thirty-six hours after the operation improvement was noted, and two weeks after the operation the ulcerated surfaces had most thoroughly healed, with a slight but smooth cicatrix.

R. Norris Wolfenden.

Le-Bec.—*Osteoma of the Nasal Fossa.* “Archiv. Internat. de Laryngol.”
Jan., 1893.

THE case of a patient, twenty-three years of age, presenting an eburnated osteoma, which caused affection of the vision. The tumour was removed with the gouge and mallet, and was of the size of a hen's egg. *Joal.*

Seeligmann (Karlsruhe).—*On Nasal Calculi.* Inaugural Dissertation, Heidelberg,
1892.

REPORT of two cases. The centre of one of the calculi was a stone, of
the other a paper button. *Michael.*

Kyle, D. B.—*The Treatment of Hay Fever by Means of Cocaine Phenate.*
“Med. News,” Dec. 17, 1892.

THE author recommends cleansing of the nasal mucous membrane by the alkaline solution, then applying an eight per cent. cocaine solution with a

pledget, leaving it in contact ten minutes, and following with a spray of the same strength. The solution used was an aqueous solution of witch hazel in which an alcoholic solution of cocaine of from one to ten per cent. was suspended. In cases in which the drug was injected into the sensitive areas the results were more rapid. A case characterized by reflex asthmatic symptoms was markedly benefited by a spray of eight per cent. of the solution.

The treatment failed to benefit the cases in which there was marked hypertrophy, but partial relief was obtained after removing the thickened membrane.

R. Norris Wolfenden.

Allen, S. E. (Cincinnati).—*The Pathology of Nasal Polypi.* “The Cincinnati Lancet Clinic,” Jan. 7, 1893.

THE author draws attention to the vague ideas existing as to the exact pathological character of nasal polypi. He criticizes severely the views held by so many that these growths are myxomatous in structure. A myxoma he defines as a tumour composed of embryonal connective tissue. It is the pathological reproduction of a tissue which occurs physiologically in the embryo, and consists of a fine network of anastomosing stellate cells, the meshes thus formed being filled in with a homogeneous ground substance rich in mucin. The solution extracted from a nasal polypus is, however, sero-albuminous. The author considers that such growths are entirely the result of inflammatory action. The vast majority of nasal polypi are attached to some portion of the ethmoid, either to the free edge of the middle turbinated or higher up in the olfactory fissure. They occur in the course of a chronic inflammation of these parts, either of a diffuse or of a local character. As a result of this inflammatory process the thin muco-periosteal lining of these parts becomes loosened, and the sub-mucous tissue meshes become infiltrated with cells and fluid. If the acting cause be of a diffuse nature, the loosening of the tissues will be diffuse; if local, then the loosening of the tissues will be localized. The result of the accompanying swelling of the mucous covering of the middle and lower turbinals will cause partial nasal obstruction. This in turn causes diminished intra-nasal pressure, with the result that increased swelling of the tissues takes place. Leucocytes and fluid are exuded in abundance. When the inflammatory growth has reached some size the action of gravity comes into play, and a pedicle is formed. Regarding the recurrence of polypi after removal, the author considers that if the pedicle be properly amputated no recurrence takes place. The softened mucous membrane is, however, predisposed to the formation of new growths, and what occurs is that after the removal of one polypus a chance is given for others to develop. Hence the necessity of treating the whole tract of diseased nasal mucous membrane.

W. Milligan.

Jacquemont.—*Why do Mucous Polypi of the Nose recur so frequently after Extirpation, and how can they be Cured without Danger of Recurrence?*

“Rev. de Laryngol.,” Feb., 1893.

THE author relates several cases of polypi removed by him with the cold snare. He has cauterized the seat of their origin with the galvano-cautery,

and he recommends keeping the patient under observation for some time, and destroying every reproduction immediately it appears. *Joal.*

Hicquet.—*Epistaxis.* “Policlinique,” July 1, 1892.

THE author points out that the situation of haemorrhage is usually at the anterior part of the septum, sometimes the floor of the meatus, rarely the turbinate. He recommends that the bleeding point should be found, and the galvano-cautery applied accurately. It is only when this fails that tamponing may be necessary. *Hicquet.*

Dalby, Sir W. (London).—*Nasal Douche or Nasal Syringe.* “Lancet,” Dec. 24, 1892.

COMMENTING on Dr. Barr’s “precautionary suggestions” in regard to the use of the nasal douche, he insists on one single precaution, namely:—absolute abstention from the use of the douche and the adoption in its stead of a nasal syringe. He condemns the argument that, because many have used the douche for years without accident, it should be still employed. *Dundas Grant.*

Szoner (Ungarn).—*Contribution to the Etiology and Therapeutics of Hay Fever.* “Pesther Med. Chir. Presse,” 1892, No. 16.

IN a typical case of hay fever there are found in the secretions of the nose little portions of grasses and other plants. Cure is effected by narcotic treatment. *Michael.*

Bresgen (Frankfort).—*Cephalalgia in Affections of the Nose and Pharynx.* “Rev. de Laryngol.” Jan. 15, 1893.

IN recent coryza, cephalalgia is seen only when the swelling of the mucosa attains such a degree that there results pressure in the nose lasting for at least some hours. The shape of the nose is of some importance. A narrow nose, retracted especially about the middle turbinate, predisposes to cephalalgia. During the attack, if the mucosa where swelling predominates is touched with a probe, extreme sensitivity is observed. In cases of suppuration cephalalgia is generally dependent upon the retention of pus, especially in the region of the middle turbinate. In the cephalalgias associated with hypertrophy of the pharyngeal tonsil or naso-pharyngeal suppuration the author asks if the headache is not due to concomitant affection of the pituitary membrane. From the localization of the cephalalgia it cannot be said for certain what region of the nasal fossæ is the seat of the compression. Nervous irritability in the patient in certain cases favours the occurrence of nasal cephalalgia. *Joal.*

Nikitine, W. (St. Petersburg.)—*Ozæna.* “Arch. Internat. de Laryngol.” Jan., 1893.

A LECTURE by the author, in which he reviews the different opinions current as to the nature of the disorder. He is of opinion that individuals affected with ozæna present a congenital anomaly of the nasal mucous membrane and its dependents favouring the decomposition of the secretions under certain circumstances. The seat of the disorder is in the nasal mucous membrane, which is atrophied. Pathologico-

anatomical researches prove this atrophy to be, as in cirrhosis of the liver, the result of a previous inflammatory thickening of the mucosa. As to treatment, the author prefers irrigations with solutions containing alkalies and disinfectants, and insufflations of powdered nitrate of silver or boracic acid.

Joal.

Ziem (Dantzig).—*Iritis of Nasal Origin.* “Annales des Mal. du Larynx, etc.,” Jan., 1893.

TWO new cases are recorded of iritis where cure was obtained in the first case by opening the maxillary sinus, in the second by removing a septal projection which obstructed the nasal fossæ.

Joal.

Batut.—*Relation between Diseases of the Eyes and Nose.* “Annales des Mal. du Larynx, etc.,” Feb., 1893.

THE author records two cases where diphtheritic productions were exhibited in the nose and eyes, and a case of rhinitis with lachrymation and crysipelatus complications. He records another case of nasal syphilis propagated to the eye, and two cases of lupus of the ocular and nasal organs, and lastly a number of cases of eye affections consecutive to nasal affections, either reflex or propagated.

Joal.

Moskowitz.—*On Diseases of the Naso-Pharynx.* Gesellschaft der Aerzte in Buda-Pesth, Meeting, Jan. 31, 1893.

A REVIEW of the subject.

Michael.

Williams, R. (Liverpool).—*Post-Nasal Growths.* “Liverpool Med. Chir. Journ.,” Jan., 1893.

A SHORT, practical paper, in which the author advocates removal of growths by means of a curette—a modification of Trautmann’s—and the use of an anaesthetic—chloroform or ether.

Middlemass Hunt.

Lenzmann (Duisburg).—*Contribution to the Treatment of Adenoid Vegetations of the Naso-Pharynx.* “Deutsche Med. Woch.,” 1892, Nos. 48 and 49.

THE author has applied to Gottstein’s knife a little apparatus which will prevent the pieces removed from falling into the larynx.

Michael.

Kafemann (Königsberg).—*Contribution to the Pathology of Aprosexia Nasalis and other Disturbances of Speech.* “Monats. für Ohrenheilk.,” Jan., 1893.

REPORT upon cases of stammering and stuttering caused by adenoid vegetations, and of one case of aprosexia.

Michael.

Kafemann (Königsberg).—*Contribution to the Diagnosis and Treatment of Empyema of the Antrum of Highmore.* Danzig: Kafemann, 1892.

A REPORT of forty cases, with remarks.

Michael.

Joel (Getha).—*Empyema of the Antrum of Highmore.* “Thuring. Correspbl.,” 1892, No. 4.

THE author describes a modified instrument for illumination of the antrum of Highmore. He usually prefers the opening of the sinus through an alveolus.

Michael.

Moure (Bordeaux).—*On a New Method of Perforating the Antrum of Highmore.*
“Rev. de Laryngol.” Jan. 15, 1893.

THE inferior nasal passage is the part generally selected to enter the sinus with a perforating trocar. Moure is of opinion that with this instrument fracture of all the osseous lamina can be produced. He prefers the galvano-cautery to traverse the mucosa and bone. Once in the sinus, a small canula is introduced through the orifice, to which is attached the nozzle of a syringe. Moure protests against the tendency of certain specialists to open the antrum too readily; the diagnosis of the affection ought to be obtained from other signs, and exploratory puncture ought to be reserved for cases where the presence of pus is presumable. Opening of a sinus may serve to give entry to microbes, and lead to suppuration. Moure has observed cases where, in spite of all antiseptic precautions, the irrigating fluid, at first pure, came afterwards to contain muco-pus. *Joal.*

Garel (Lyons).—*On a Complementary Sign in the Diagnosis of Empyema of the Maxillary Sinus by Electric Illumination.* “Annales des Mal. du Larynx, etc.,” Feb., 1893.

BESIDES the ordinary signs, Garel dwells upon irrigation of the antrum through its natural orifice, practised with Heryng’s sound, and electric transillumination, a sign to which he had at first attached but little importance. He has returned to his first opinions. He, however, draws attention to a new symptom, viz., absence of luminous perception on one side by the patient himself. With a lamp in the mouth of a healthy subject, whose eyes are closed, a luminous impression is produced upon the lower part of the retina. In four cases of unilateral empyema Garel observed that this luminous perception was suppressed on the side where the antrum contained pus. *Joal.*

Hartmann (Berlin).—*On the Anatomical Proportions of the Frontal Sinus and its Openings.* “Langenbech’s Archiv,” Band 45, Heft 1.

FROM two specimens of the frontal sinus the author shows that sometimes great anomalies exist, and that it is often very difficult to introduce a probe into the cavity. *Michael.*

Hartmann (Berlin).—*Anatomy of the Frontal Sinus.* “Verhandlungen der 21 Chirurgencongress,” page 402.

THE author showed some specimens presenting anomalies of the frontal sinus and its duct. *Michael.*

Schäffer (Bremen).—*Acute and Chronic Disease of the Sphenoid Sinus.* “Deutsche Med. Woch.,” 1892, No. 47.

THE author believes that diseases of the sphenoidal sinus are not so rare as is believed. He has observed nineteen cases of acute and fifty-three of chronic empyema. In acute cases the patient suffers from headache and vertigo, and feels a pressure over the eyes. It is due to propagation of the inflammation from the nasal mucous membrane or a genuine disease. The objective examination reveals a protrusion of the anterior walls of the sinus, but no abundant secretion, and no dry secretion. After cocaineization of the nose the cavity can be opened by introduction

of a probe through the natural opening, or by the sharp spoon. By sniffing now a mass of mucus and pus is often removed, with great improvement in the condition of the patient. Chronic inflammations of the sinus are often combined with nasal polypi. The author believes, in opposition to Grünwald (see the review of his book), that in cases of ozana the ozana is primary, and the disease of the accessory cavities secondary. In cases of chronic suppuration the subjective symptoms are vertigo, discharge of pus, foetor, psychical depression, disturbances of vision, and a feeling of oppression. Objective symptoms are, broadness of the nose, erysipelatous redness of the nose, hyperplasia of the nasal mucous membrane, pharyngitis siccata, polypi, hypertrophy of the tonsils. The treatment consists in opening the sinus with the sharp spoon, dilating by the bone forceps, and after-treatment with antiseptic irrigations and insufflation of iodoform powder.

Michael.

LARYNX.

Tousey, S.—*Frau Gelly; a unique Throat Subject.* “New York Med. Journ.,” Oct. 29, 1892.

AN account of this remarkable person, who is employed as a nurse in Prof. Schnitzler’s clinic, and hires herself out at eighty cents an hour to medical men as a subject upon which to practise laryngology and rhinology. Last year an American physician, working in Vienna on a modification of O’Dwyer’s tubes, is said to have intubated Frau Gelly’s larynx one thousand times!

R. Norris Wolfenden.

Musehold (Berlin).—*Apparatus for Photography of the Larynx.* “Annales des Mal. du Larynx, etc.,” Jan., 1893.

THE author gives a historical survey of the question, and enumerates the various trials made and apparatus constructed for photography of the larynx. He then describes his own instruments and methods. But the laryngeal pictures are not better than those produced previously, and appear to be much less clear than those figured by French.

Joal.

Killian (Freiburg).—*Demonstration of Laryngoscopic Images by Direct Projection.* “Münchener Med. Woch.,” 1893, No. 6.

IMPROVED camera obscura apparatus.

Michael.

Scheier (Berlin).—*Trauma of the Vertebral Column. The Position of the Larynx in relation to the Vertebral Column.* “Berliner Klin. Woch.,” 1893, No. 2.

A PATIENT, thirty years old, died from luxation of the fifth vertebra. At the *post-mortem* examination a decubital ulcer was found on the posterior wall of the pharynx exactly at the level of the posterior wall of the cricoid cartilage. This proves that the cricoid cartilage is situated at the level of the fifth vertebra.

Michael.

Schmidt, Meihardt (Cuxhaven). — *Congenital Malformation of the Cartilage of the Epiglottis.* “Verhandlungen der 21 Chirurgencongress,” page 185.

A CHILD, six months of age, dying from atrophy had during his lifetime dyspnoea and stridor. The *post-mortem* examination showed the cause of the dyspnoea to be a malformation of the epiglottis, which was so compressed at its sides that it entirely stenosed the aditus laryngis.

Michael.

Irsay.—*Cases of Laryngeal and Pharyngeal Syphilis.* Gesellschaft der Aerzte in Budapest, Meeting, Nov. 19, 1892.

EXHIBITION of cases cured by intra-muscular injections of sublimate. In two cases of laryngeal stenosis it was possible to avoid tracheotomy by the prompt effect of the drug, but in a third case tracheotomy had to be performed.

BOKAY preferred intubation to tracheotomy in cases of syphilitic stenosis, and reported some cases which presented the best results.

OSTERMAYER and BASCH also recommended intra-muscular injections.

Michael.

Seamon.—*A Clinical Lecture on Syphilis of the Larynx.* “The Clinical Journal,” Jan. 18, 1893.

AS to general frequency, Seamon shows three per cent. out of twenty thousand cases of syphilis affecting the larynx, eighty-seven per cent. of such cases showing slighter forms of the affection, thirteen per cent. the graver lesions. The manifestations are of a three-fold nature, viz., secondary, tertiary, and congenital. The usual oral and faecal appearances are not observed in the larynx. The sub-divisions given are not to be taken seriously, rather as classifications of convenience. “Intermediate” is a term that might be used to designate some manifestations of the disease. The forms are as follows:—Secondary, simple catarrh (erythema); papules (condyloma, mucous patches); tertiary, diffuse infiltration, gummatata, ulcerations; fibroid manifestations, cicatrices (membranous adhesions, etc.), neoplasms, perichondritis, paralysis.

Ulcerations are common to all, while all forms may occur in congenital syphilis, although here the graver forms are rare.

Age.—The acquired form usually occurs between seventeen and forty years; the congenital form shortly, or three or four years after birth—a late form of hereditary syphilis is sometimes observed at puberty. No age, however, is exempt, not even the age of sixty or seventy years. Sex imposes no differences. The date of appearances varies. The secondary forms may appear after six weeks, or it may be after some years, while the tertiary generally only occur after the lapse of several years. Some secondary affections repeat themselves for years, while again tertiary forms spring up in the larynx four or five months after the primary affection. The specific erythema differs little from the simple form, but existing signs are present as a guide. Seamon holds that the papulous syphilide is a rarely observed manifestation. Both the above tend to recur again and again. Among the so-called tertiary forms the first described is the *diffuse infiltration* due to small-celled proliferation, usually attacking the vocal cords, epiglottis, or posterior wall of the larynx, and disfiguring the normal

appearance of the parts. The gummata, which histologically are sharply limited, develop in the submucous tissue, and cause a serious form of laryngeal syphilis—perichondritis—often occurring with intact mucosa. In both the last forms there is generally no pain, which sign serves as a diagnosis from other laryngeal affections, e.g., tuberculosis, cancer, etc. Both the latter forms may break down and ulcerate. In some infiltrations fibroid metamorphosis develops, leading to stenosis of the larynx.

Cicatrices result from the repair of ulcerations, and are prone to contract, leading to stenosis, diaphragms, etc. Actual neoplasms arise as a result of ulcers, etc. Perichondritis is the most serious form of syphilis in the larynx, arising from ulcers or gummata invading the cartilage, from infiltration between the perichondrium and cartilage.

Sclerosing perichondritis is referred to. Paralyses both of a local and distant source may occur. Treating of the question of diagnosis, it is urged that, in syphilitic diseases especially, the appearances to the eyes more than the history are to be trusted, for the patient may deny the fact, or he or she may not be aware of the significance of the question on the point, and, again, the patient may not know that he has had it.

As to subjective symptoms, they depend on localization and intensity of infection. As to differential diagnosis, the two affections most apt to be confounded with syphilis are cancer and tuberculosis. In the latter there is pallor, in syphilis inflammatory redness; the tubercular ulcer develops slowly, the syphilitic rapidly; the tubercular ulcers, small at first, develop on both sides of the larynx—the syphilitic, often large from the first, are frequently solitary and unilateral; the former is worm-eaten, the latter deeper and more sharply defined. Both syphilis and tubercle may be found associated in a case. The use of the iodide forms a useful guide in differentiation from cancer. Decided cervical adenitis favours the diagnosis of cancer.

As regards the treatment, no hard and fast rule can be laid down as to when hydrarg. should be used to the exclusion of the iodide, and *vice versa*. Which of the two is most suitable in a given case must be found out by application. Alternating the remedies is of service. Mercury is advised to be exhibited in the form of inunction. Twenty grains of ointment is to be daily rubbed in for a month. This is useful in all cases, from the primary to the tertiary, where the iodide may be given internally. Local application to the larynx, except in obstinate cases, is not urged. Tracheotomy and Schroetter's tubes for stenoses, and intra-laryngeal operations for adhesions, are mentioned.

Wm. Robertson.

Sokolowski (Warsaw).—*Some Remarks on Erysipelas of the Larynx.* “Gaz. Lek.” 1892, No. 32.

THE author reports four cases of this rare disease. The first, which ended satisfactorily, began as “angina lacunaris,” in which Sendter found streptococcus pyogenes et streptococcus erysipelatis (Fehleisen). It is therefore possible that the process extended from the tonsil to the larynx by means of the lymphatic vessels, and caused the disease observed (erysipelas laryngis). In the second case, which ended fatally,

post-mortem examination showed purulent infiltration of the larynx, which probably had caused general infection. In the last two cases, each with favourable course, the process also began in the tonsils in the form of lacunar inflammation, which afterwards was followed by slight œdema of the larynx. The author is of opinion that this swelling was also dependent upon the streptococcus erysipelatis, which naturally can only be proved by bacteriological examinations.

John Sendziak.

MacCoy, A. W.—*Rare Forms of Laryngeal Growths.* “New York Med. Journ.” Feb. 4, 1893.

THE author refers to the rarity with which true myxomata are found in the larynx. All laryngologists (with the exception of Fauvel) who have written on this subject regard the disease as unusually rare. The patient, a woman aged thirty-nine, had suffered from a defective voice for two years. There was frequent cough, a jerky form of respiration, but no pain and no embarrassment of respiration. A tumour was found to exist in the larynx as large as a Lima bean, and resembling it in appearance. The growth appeared to spring from the ventricle of the larynx and overlapped the right vocal band, except for a short distance posteriorly. The growth was smooth in contour, flattened from side to side, and of a pale pinkish-yellow colour. On removal the growth showed the histological structure of a true myxoma.

The second case was that of a fibroma occurring in a male patient, aged forty, who also suffered from pulmonary phthisis. The larynx also presented the typical appearances of laryngeal tuberculosis. A large pear-shaped tumour, smooth in outline, movable, and bright red in colour was found in the laryngeal cavity springing from the anterior and right surface of the thyroid cartilage, and apparently from beneath the anterior commissure. The tumour was removed with a wire snare, and was found to be composed of interlacing bundles of dense fibrous tissue, the outer layers composed of thickened layers of mucous membrane.

W. Milligan.

Goris.—*Communication to the Academy of Medicine of Belgium, June 25, 1892.*

(1) EXTRACTION of a needle, four centimetres long, lying horizontally in the larynx—one end being in the epiglottis, the other in the arytenoid cartilage. Removed with Fauvel's forceps. (2) A new laryngeal forceps for polypus. (3) Reports of two cases of pachydermis laryngitis—one of the diffuse, the other of the verrucous variety, in which case five separate tumours were removed.

Hicquet.

Parker, Francis L. (Charleston).—*Extraction of a Safety Pin from the Larynx with Mackenzie's Forceps.* “Med. Rec.” Aug. 20, 1892.

A CHILD five years old swallowed an open safety pin, which stuck in the larynx, and caused extreme dyspnoea. The child was put under chloroform and gagged, and by means of the finger the pin could be felt in the larynx. At the third trial it was extracted by means of Mackenzie's forceps.

Dundas Grant.

Moure (Bordeaux).—*A Piece of Glass arrested at the Entrance to the Digestive and Air Passages.* “Rev. de Laryngol.” Feb. 1, 1893.

A PATIENT, aged twenty, was attacked with sharp pain in the throat, after

eating soup, a month previously. Laryngoscopically the larynx was seen to be normal, but on the posterior part a black line was seen, extending transversely from one hyoid fossa to the other and hiding the arytenoids a little. The probe revealed a certain hardness of the object, and the author thought of the presence of an iron nail. He extracted it with duck's-bill forceps, and found it to be a triangular piece of glass, three centimètres along one side, three and a quarter and three and a half centimètres along the other sides. It had penetrated by one of its angles into the digestive tract.

Joal.

Seifert, O. (Wurzburg).—*Foreign Bodies in the Larynx.* “Rev. de Laryngol.,” Jan. 1, 1893.

THE case of a child, six years of age, who had presented laryngeal symptoms for six months. Between the vocal cords the author discovered the presence of a piece of bone, long and thin, one of the points of which was engaged in the anterior commissure, and the other was fixed in the anterior aspect of the posterior laryngeal wall. The bone was removed by Schroetter's forceps laryngoscopically; and one side was found to be fifteen millimètres long, the two others twelve millimètres. The author reviews the cases recorded of bones fixed in the larynx, and cites the observations of leeches which had penetrated into the vocal organs.

Joal.

Geley, G. (Lyons).—*Pralysis of one Vocal Cord, Primary Cancer of the Lung, and Tuberculosis.* “Annales des Mal. du Larynx,” Jan., 1893.

THE observation of a case from Dr. Garel's clinic. At the autopsy the left lung was found to be on all sides bound to neighbouring organs and to the posterior thoracic wall by hard and resistant adhesions. The upper part of the lung was transformed into a white lardaceous mass, histologically proved to be a scirrhus.

Joal.

Bresgen (Frankfort-a-M.).—*Spasm of the Glottis.* “Diagnostisches Lexicon für Practische Aerzte Wien,” 1892.

EXCELLENT short review of this subject.

Michael.

Onodi.—*Clinical Contribution to the Etiology of Laryngeal Paralysis.* Gesellschaft der Aerzte in Budapest, Meeting, Jan. 14, 1893.

A PATIENT, sixty-two years old, had an aneurisma aortæ and paralysis of the right posticus and total paralysis of the left vocal band. The microscopic examination showed on the left side total degeneration of the nervus laryngeus inferior, in the nerve of the right side both degenerated and normal fibres. As in experiment here the nerve of the posticus muscle was the first to degenerate, then the nerve supply of the thyro-arytenoideus, and lastly the nerve of the lateral muscle.

Michael.

Burger, Hendrik (Amsterdam).—*The Question of Posticus Paralysis* “Volkmann's Klinische Vorträge,” neue folge, No. 57. Leipzig: Breitkopf und Härtel. 1892.

A REVIEW of the papers written upon this question, with critical remarks. The author concludes that Krause's hypothesis cannot be supported, and that Semon's conclusions agree with clinical experiences, and that his

views rest upon a physiological basis by late experimental work. [The divergence between these two views, supported respectively by Krause and Semon, will never disappear so long as the authors will not allow that both views may be right. In most cases without doubt a paralysis of the postici is the cause of the characteristic position of the cords. In a few cases the complex of symptoms is produced by contraction of the adductors. Such cases I have called "dyspnoea spastica," and first described in 1885. Similar observations have been published by Krause, Heryng, and Eisenlohr. The cessation of the dyspnoea during chloroform narcosis, and the combination of the dyspnoea with aphonia spastica, are characteristic of contraction. My own case has been under my observation for nine years, and even now it is impossible to remove the canula. The aphonia is up to now also unchanged.—*Reph.*] *Michael.*

Gersuny (Wien).—*Laryngotomia Transversa.* “Billroth’s Festschrift.” 1892.

THE author recommends as a preliminary operation in extirpations of laryngeal tumours thyrotomia transversa. The operation consists in making a horizontal incision through the whole thyroid cartilage over the vocal cords. The mucous membrane of the Morgagni ventricles is also divided. The upper part of the thyroid cartilage is now divided into two halves. It is thus possible to remove tumours of the larynx and epiglottis without division of the anterior part of the vocal cords. *Michael.*

Toti (Florence).—*Tachycardia following Extirpation of the Larynx.* “Deutsche Med. Woch.,” 1892, No. 4.

POLEMICAL article.

Michael.

Grossman (Wien).—*On “Heart Death” following Extirpation of the Larynx.* “Billroth’s Festschrift,” 1892.

THE author’s experiments gave the following results: Death from disturbed circulation following extirpation of the larynx is caused through a continuous state of irritation of the nervi laryngei superiores, and eventually by continuation of this irritation to the nervi vagi. *Michael.*

Abbe, R. (New York).—*Partial Laryngectomy for Extensive Carcinoma.* “Med. Rec.,” Nov. 26, 1892.

A MAN, aged forty-five, had been treated for more than a year for papillomatous vocal cord, and subsequently was found to have extensive carcinoma involving more than half the larynx. Obstructive œdema came on and Dr. Abbe performed tracheotomy and partial laryngectomy, removing the entire thyroid cartilage except the posterior third of the right ala, together with all the larynx except a strip of the posterior wall, half an inch wide, continuous with the bronchial (*sic!*) mucous membrane. Part of the cricoid cartilage was invaded and also removed. The wound was packed with iodoform gauze, and the patient was fed for ten days by soft catheter. The recovery was uninterrupted, and a useful though hoarse and guttural voice remained. [The date of the operation is not stated.] *Dundas Grant.*

Wolf, Julius (Berlin).—*Improvements in the Artificial Larynx, and Demonstration of a Patient having undergone Total Extirpation of the Larynx.* “Verhandlungen der 21 Chirurgencongress,” page 482.

THE author showed a patient whose larynx was extirpated for cancroid, and who wore an improved artificial larynx, by which it was possible to speak for a long time without disturbance, and to sing. The details of the instrument cannot well be understood without illustration, and must therefore be read in the original. *Michael.*

Wolf, Julius (Berlin).—*Improvements in the Artificial Larynx, and Demonstration of a Case of Total Extirpation of the Larynx.* “Langenbech’s Archiv,” Band 45, Heft 2.

SEE the report in this Journal of the Berliner Med. Gesellschaft.

Michael.

Szowrski (Posen).—*On Fractures of the Larynx.* Inaugural Dissertation, Würzburg, 1892.

A REPORT upon the literature of the subject. The author adds a new case of his own observation. The patient probably had had a traumatic fissure of the thyroid cartilage. Four weeks after the occurrence the laryngoscope showed swelling of the ventricular bands, and inflammation of the vocal cords. In the anterior commissure a body, five millimètres long, was seen, which, when removed, proved to be dissolved mucous membrane. Cure resulted. *Michael.*

Moskowitz (Pesth).—*Laryngeal Wounds.* “Pester Med. Chir. Presse,” 1892, No. 4.

A REVIEW of the subject.

Michael.

Scheier (Berlin).—*O'Dwyer's Intubation of the Larynx.* “Therap. Monats.,” 1893, No. 1.

A REPORT upon the application of the method to twenty cases of diphtheria. The author does not believe that the results are better than those of tracheotomy. In two cases the dyspnoea was increased by the introduction of the tube, and tracheotomy had to be performed. In cases of paralysis of the glottis following tracheotomy, and of granulation stenoses, the method was followed by very good results. The author has also tried the method in some cases of chronic stenoses caused by syphilis and fractures of the larynx, and has obtained satisfactory results. *Michael.*

Galatti (Wien).—*O'Dwyer's Intubation as a substitute for Tracheotomy in Diphtheritic Laryngeal Stenosis.* “Allg. Wiener Med. Zeitung,” 1892, No. 46.

A RECOMMENDATION of the method.

Michael.

Maydl (Wien).—*Intubation a means of Obviating the Entrance of Blood into the Respiratory Organs during Operations.* “Wiener Med. Woch.” 1893, No. 23.

THE author applies an O'Dwyer tube with an inductor similar to Pean's forceps. The tube is connected with a drain to which is attached a

funnel. The pharynx is tamponed with iodoform gauze. Through the funnel the patient respires and can be narcotized. In this manner it is possible in operations upon the mouth and pharynx to prevent aspiration of blood and wound secretions and glottic spasm without performing tracheotomy. The author has tried his method in several cases with good results. He has also found that his apparatus may remain twenty hours in the trachea without damage.

Michael.

Morris, Henry (London).—*On the Value of Sutures in Cut-Throat.* “*Lancet,*” Dec. 24, 1892.

THE author describes cases in support of his views as to the advantages of the free use of buried sutures uniting accurately end to end the cut edges of each structure which has been divided—cartilage with cartilage, membrane (*e.g.*, thyro-hyoid) with membrane, muscle with muscle, fascia with fascia, and skin with skin—and the insertion of a few pieces of drainage tube at selected points. He impresses the necessity of securely fixing the head and steadyng the neck during the healing of the wounds after closure by sutures. The advantages are that union by first intention is secured with such rapidity that, during the whole of the process, the patient can be supported by rectal feeding entirely, thus avoiding the distress and mischief arising from attempts at swallowing, and the discomforts attending feeding by an œsophageal tube. There is less risk of fistula or of contraction, and freedom from the alleged (*unfounded*) risk of suffocation from the detached portion of the epiglottis falling over the upper aperture of the larynx.

Dundas Grant.

Pollard, Bilton (London).—*On the Value of Sutures in Cut-Throat.* “*Lancet,*” Dec. 31, 1892.

THE author quotes cases of his own in support of the views expressed by Mr. Henry Morris.

Dundas Grant.

THYROID GLAND, &c.

Hoffmeister.—*Physiology of the Thyroid Gland.* “*Fortschritt der Medicin,*” 1892, Nos. 3 and 4.

THE author has extirpated the thyroid gland in a great many rabbits. In all cases he found vicarious enlargements of the thymus and spleen, enlargement of the hypophysis, diminished developments of the bones and the epiphyses, enlargement of the ovaries through increased development of follicles, and pathological changes in the kidneys.

Michael.

Gibson (Brisbane).—*The Function of the Thyroid Gland.* “*Brit. Med. Journ.,*” Jan. 4, 1893.

A PAPER recording the case of a child, where the thyroid appeared to be absent, and into whose body the author twice grafted the thyroid of a lamb. *Inter alia*, the author is averse to believing, from observations on dogs

etc., in any blood-forming function of the thyroid, as in his experiments the corpuscular elements remain unaffected after thyroidectomy. The author adheres to the hypothesis of Schiff that the gland secretes some substance whose absorption into the blood is essential to life, also to the extension of the same by Canalis, viz., that the substance secreted is essential for the nourishment of the central nervous system. The gland secretes, not excretes. The author, besides, refers to a previous communication of his own, that any haemopoietic function the gland may appear to have in certain animals is due only to the presence of lymph follicle tissue in the thyroids of such animals. The author now, as previously, demurs to the total excision of the thyroid. The case referred to in the paper was that of a child, aged two years, presenting thickening of the subcutaneous and submucous tissues, and great stolidity. Two years later the myxedematous condition was more marked. Nothing abnormal in the urine. There are photographs scattered through the text, which show that the thyroid grafting into the peritoneal cavity in this case was attended by most favourable results.

W'm. Robertson.

Eiselberg (Wien).—*Further Contributions to the Study of the Consequences of Operations upon Goitre.* “Billroth's Festschrift,” 1892.

OF fifty-two cases of total extirpation of goitre operated on in Billroth's clinic there arose symptoms of cachexia in seventy per cent. Of forty-seven cases of partial extirpation, cachexia followed in only one case. Of great interest also is one case of cachexia following upon acute suppuration of the thyroid gland.

Michael.

Hinterstrisser (Teschen).—*Contribution to the Study of Cancer of the Thyroid Gland.* “Billroth's Festschrift,” 1892.

A STATISTICAL report upon fifty cases of this disease observed in the Pathological Institute of Vienna. Of special surgical interest are the adhesions of the tumour to the neighbouring organs. The following histological forms have been observed: adeno-carcinoma, medullary carcinoma, and fibrous carcinoma. The differential diagnosis between benign and malignant neoplasms is sometimes rather difficult. Operations up to the present give very bad results.

Michael.

Wette (Jena).—*Contribution to the Symptomatology and Surgical Treatment of Goitre, and the relation between Morbus Basedowii (Graves' Disease) and Goitre.* “Langenbech's Archiv,” Band 44, Heft 3 and 4.

FROM July, 1882, to November, 1891, Professor Riedel operated upon ninety-two goitres. The study of these cases led to the following results:—(1) Most cases were operated upon because of malformation, or on account of palpitation and dyspnoea. The high frequency of the pulse cannot be regarded in all cases as caused by the goitre, and remained sometimes after operation and the disappearance of all other symptoms. The palpitation in cases of goitre may be caused by increased venosity of the blood, and by irritation of the nervi laryngei inferioris by pressure of the tumour. The dyspnoea is caused by compression or deviation of the trachea. Such malformations of the trachea

were observed in twenty-four cases. By all causes which increase the flow of blood to the goitre dyspnoea is increased, especially by muscular movements, and by menstruation and pregnancy. The highest degrees of dyspnoea were observed in substernal goitres. In these cases every enlargement of the goitre increases the intra-thoracic pressure. It may produce hoarseness by unilateral paralysis of a vocal cord by pressure upon the recurrent nerve, and dysphagia by pressure on the oesophagus. Dyspnoea may also be produced by bronchitis and by compression of the vena cava. In one of the cases paralysis of one sympathetic nerve was observed. (2) The next chapter describes the total and partial extirpation of goitres, the enucleation of goitres, the technique and the dangers of the different methods of operation. The details are of surgical interest, and must be read in the original. *Michael.*

Speyer.—*Strumectomy in Morbus Basedowii (Graves' Disease).* Freie Vereinigung der Chirurgen in Berlin, Meeting, Jan. 2, 1893.

A PATIENT, twenty-one years old, had presented goitre since early youth. During the preceding ten weeks there had been loss of weight and cachexia. A tumour of the size of a fist existed in the anterior region of the neck. Extirpation was performed. Some weeks later, cachexia increased. Pleuritis and death followed. The *post-mortem* examination showed tumours to exist in the lung. The microscopical examination revealed sarcomatous degeneration of the struma. *Michael.*

Neumann.—*Operation upon a Case of Morbus Basedowii.* Freie Vereinigung der Chirurgen in Berlin, Meeting, Jan. 2, 1893.

BY strumectomy all symptoms of the disease have disappeared. *Michael.*

Winckler (Bremen).—*In what Cases are Intra-Nasal Operations indicated in Morbus Basedowii (Graves' Disease)?* “Wiener Med. Woch.,” 1892, Nos. 40 to 44.

THE author concludes, after reviewing the literature of the subject, that polypi, vegetations, or malformations which produce complete obstruction of the nose should be removed in cases of Basedow's disease, but that it is not proper to treat small irregularities in the nose from which the patient suffers no inconvenience. *Michael.*

Anderson, T. McCall.—*The Treatment of Myxædema.* “Practitioner,” Jan., 1893.

“MUCH may be accomplished from a line of treatment naturally suggested by the character of the symptoms, and by the circumstance just mentioned, that these patients suffer in cold and improve greatly “in warm weather.” A case is cited in detail in illustration, that of a young woman of twenty, presenting marked symptoms of myxædema, and who was put upon strychnine and arsenic, with daily shampooings for half an hour. Every third day she had—first day, a vapour bath; second day, quarter grain of pilocarpin; third day, a hot electric bath for half an hour, each of which procedure made her perspire profusely. Within ten days improvement was manifest, the skin became smooth and soft, she felt warmer, and the “shivering in the inside” and headache

completely disappeared. The treatment was continued from May to August, 1884, when she left the hospital with very great improvement.

The author thinks that the administration of the thyroid gland of the sheep or pig, or a fluid extract, by the mouth or by subcutaneous injection, is a complement to the method of treatment above indicated ; the object aimed at being to replace the secretion of the thyroid gland which is absent, and results so far have vastly exceeded expectation.

A second case is recorded in detail of a woman of thirty, who was treated with arsenic and iron for about six weeks without benefit, and was then put upon the administration of thyroid juice (Brady's preparation of Dr. Murray's extract, twenty minims being given by the mouth on four consecutive days, after which an interval of three days was allowed before any more was given). The treatment was begun on October 31st, and on November 21st the swelling had almost disappeared, the skin was still very dry, temperature rose to 98·4, and menstruation was regular. On December 14th the number of blood corpuscles had increased from 3,040,000 to 3,400,000 per cubic millimetre, the swelling of the body had entirely gone, the weight had fallen one stone one and a half pounds since beginning the treatment, the mental and bodily hebetude had entirely disappeared, the speech and intellectual faculties were perfect, and patient was of opinion that she was quite well.

The author thinks it interesting to compare the administration of thyroid extract by the mouth with its use subcutaneously, a good illustration of which is given by Dr. Napier in the "Glasgow Med. Journ.," September, 1892. The thyroid extract given by the mouth appears to be quite as effective as when given by subcutaneous injection, without the disadvantages of the latter, such as alarming symptoms (tonic spasm and loss of consciousness, especially if not injected very slowly) immediately after injection ; indurations, and abscess at the seat of puncture, fever, etc. In order to prevent abscesses the treatment must be repeated from time to time, which can be more conveniently done by the mouth.

Dr. Anderson thinks it premature to speak positively as to the curative effect of the remedy. It undoubtedly gives great relief and dissipates all the unpleasant symptoms in a comparatively short space of time, but evidence, so far, points to tendency to recrudescence of the symptoms. No doubt, however, a new valuable remedy has been discovered.

R. Norris Wolfenden.

Guterbock.—*Case of Echinococcus of the Neck.* Freie Vereinigung der Chirurgen in Berlin, Meeting, Jan. 8, 1893.

A TUMOUR, resembling an inflamed scrofulous gland, was extirpated from the left side of the neck of a patient nineteen years old. When the incision was made an echinococcus cyst was removed. Cure followed.

Michael.

Gussenbauer (Prag).—*Contribution to the Knowledge of Branchiogenic Tumours.* "Billroth's Festschrift," 1892.

THE author has observed four cases of "cervical fistulae." Only in one case was the fistula congenital : in the other three it developed

during life. All cases were cured by excision of the fistula. In eleven cases he observed cysts, which were also cured by extirpation. The microscopical examination showed the cysts to possess a wall of epithelium, and that they developed in lymph follicles and lymph glands, and are formed by lymphadenoid tissue. The author also relates eight cases of so-called "branchiogenic cancers," operation upon which was of great difficulty, because they had very early formed adhesions with the great vessels and the vagus nerve.

Michael.

E A R.

Hartmann.—*Demonstration by a Specimen of Specimens of the Ear, the Frontal Sinus, the Antrum of Highmore, and the Septum of the Nose.* Berliner Medicinische Gesellschaft, Meeting, Dec. 14, 1892.

HE showed the ductus naso-frontalis in relation to the introduction of the probe, the nasal wall of the antrum of Highmore which sometimes only consists of mucous membrane, and can easily be perforated through the nose. He also showed a specimen of an antrum divided into three cavities by osseous walls, a cystic degeneration of the sinus, and some malformations of the nasal septum.

Michael.

Barr, T. (Glasgow).—*A Striking Case of Simulated Deafness.* "Arch. of Otol.", Oct., 1892.

A SERVANT-GIRL who had apparently become very suddenly totally deaf was treated by her family doctor with blisters over the mastoids, iodide of potassium, strychnine and pilocarpin for a fortnight without result. She acquired with singular rapidity a great proficiency in lip-reading. There was no hearing power for the tuning-fork, conversation, or any sound. The ears appeared perfectly normal. Her lip-reading was found to be perfectly at fault when the speaker's lips and face moved without the utterance of sound. Suspicion of simulation was then entertained. She was detected through her singing the identical song which had been sung in her neighbourhood earlier in the day, though she had admitted she had never known it before. On being charged with the deception, she "began to hear a little in one ear," and in three days completely recovered her hearing.

Dundas Grant.

Mygind, Holger (Copenhagen).—*Deaf-Mutes in Denmark.* "Arch. of Otol.", Oct., 1892.

DR. MYGIN, profiting by the fact that the Government of Denmark has since 1817 concerned itself with the registration and education of the deaf-mutes in that country, has analysed in a most interesting and instructive manner the statistics obtained. It was only in 1879 that returns in the present complete form were inaugurated, and he confines himself to the date relative to the period between 1879 and 1890. Among

points of interest are the fluctuation in the number of deaf-mutes from year to year, the greater number of male than female deaf-mutes (the early mortality of female deaf-mutes is stated later on). A very large increase in the number registered took place between 1870 and 1875, which could not be explained by any epidemic of measles, scarlatina, or typhoid, but by one of cerebro-spinal meningitis. Many interesting points in regard to the social relations of deaf-mutes are discussed. Not a single child born in the marriages of deaf-mutes was itself deaf and dumb.

Dundas Grant.

Fougeray, Hamon de.—*Note on some Points in the Surgical Anatomy of the Tympanic Drum.* “Annales des Mal. du Larynx, etc.,” Jan., 1893.

THE author gives an anatomical description of the tympanic membranum, the tendon of the tensor tympani muscle, and the neighbouring parts, and studies the topographical relation of these parts in the erect and prone positions.

Joal.

Delstanche.—*Liquid Vaseline in the Treatment of Affections of the Middle Ear.* “Bull. de l'Acad. Roy. de Méd. de Belgique,” Tome vi., No. 10.

AT the last meeting of the Society of Laryngology and Otology in Belgium Dr. Delstanche brought forward the question of the employment of liquid vaseline in catarrhal conditions of the middle ear. He again advocates the use of this agent, says that the pain in inflammation of the middle ear is instantly modified, and that the discharges can be got rid of. The syringe used is very much like the Eustachian catheter, and about four to five drachms of the warm liquid are injected. He gives notes of eighteen cases.

Hicquet.

Lockwood (London).—*Gangrene of both Ears.* “Brit. Med. Journ.,” Feb. 4, 1893.

THE patches of gangrene were symmetrical, and resembled the lesions of Raynaud's disease. There was no history of frost-bite, the disease showing in mild weather. The pupils were unequal, and did not react well to light, suggesting atrophic nerve lesion. Neither albumen nor blood pigment were found in the urine. The treatment suggested was varied—local application of belladonna, trinitrine tabloids internally, removal of scab and antiseptic plaster, and again small doses of opium. [One case observed in a syphilitic subject was cured by specific treatment.—ED.]

Wm. Robertson.

Rouse, E. R. (Colney Hatch).—*Hæmatoma Auris.* “Lancet,” Dec. 3, 1892.

HÆMATOMA occurs most frequently in acute mania and the maniacal stage of general paralysis—at times in those chronic manias with recurrent attacks. Dr. Rouse believes that violence of some sort is the usual cause—it may be merely a slight rub or knock. He considers it a very unfavourable element in prognosis, especially if bilateral. It is more common in sane people than is generally supposed. He has not been able to detect atheroma of the arteries. The insane ear is commoner among the higher than the lower class of patients. [Dr. Wynne describes in the “Transactions of the Pathological Society” for 1892, p. 141, a patchy breaking up of the cartilage in aged ears, with invasion

of processes of perichondrium containing vessels. He holds that a similar change is present in the insane, the haematoma resulting from the rupture of these vessels.]

Dundas Grant.

Knapp, H. (New York).—*A Marked Case of Rudimentary and Displaced Auricle, with Defective Development of the Side of the Face.* “Arch. of Otol.” Oct., 1892.

THE right auricle was abnormally near the front, and consisted in its upper part of a hard, bent ridge; in its lower of a soft, fibrous mass directed forwards. Behind it, at the place where the auricle ought to have been, was a shallow depression. The right half of the face was markedly smaller than the left. The temporal, malar, palatal, and superior maxillary bones, and the right half of the inferior maxillary, must have been atrophic. References to the literature are given. [Mr. Heaton's paper in the JOURNAL OF LARYNGOLOGY, April, 1892, is of interest in connection with such cases.]

Dundas Grant.

Körner, Otto (Frankfort).—*A Study of some Topographical Relations of the Temporal Bone.* “Arch. of Otol.” Oct., 1892.

THE right jugular fossa is larger and deeper than the left, hence defects in the floor of the tympanum are more frequent in the right than the left ear. Körner still maintains—in spite of Schützke's opposing observations—that deep extension of the lateral sinus into the base of the petrous bone, as well as greater depth of the middle fossa, is more common in brachy-cephalic (index under 1·30) than in dolicho-cephalic skulls (index over 1·30), the thickness of the outer wall of the sinus being greater in the latter. Defects in the tegmen tympani are more frequent (14·16 per cent.) in the brachy-cephalic than the dolicho-cephalic (1·4 per cent.). The thickness of the wall between the carotid and middle ear varies at its thinnest part from 1·0 to 7·8 millimetres, and averages 3·25. In case of extreme thinness or dehiscence the carotid might be easily wounded from the external meatus. The facial canal is distant from the middle of the posterior margin of the tympanic sulcus from 1·5 to 4·3 millimetres, averaging 3·08, and mostly lies somewhat farther outwards (usually 1·0 to 2·0, at the most 3·7). Above the middle of the posterior margin the canal is so bent that the aditus ad antrum can be there opened without the nerve being touched. The structure of the mastoid process in fifty-four skulls is tabulated as follows:—

	Dolicho-cephalic.	Brachy-cephalic.
Pneumatic	24	11
Compact	0	6
Diploic	0	2
Pneumatic and compact ...	2	1
Pneumatic and diploic	6	2

This shows pneumatic mastoids in 75 per cent. of the dolicho-cephalic skulls, the other 25 per cent. being partially pneumatic, whereas in the brachy-cephalic only about 50 per cent. are pneumatic, and about 30 per cent. compact. This is interesting in connection with the observation that the lateral sinus is usually well separated from the external canal in pneumatic mastoids.

Dundas Grant.

Schleicher.—*Observations on Cerebral Abscesses from Ear Disease.* [“Ann. de la Soc. de Méd. d’Anvers,” Nov., 1891.]

THE patient had suffered from otorrhœa and cerebral disease, and the diagnosis of subdural abscess in the middle fossa was made. Schwartz's operation was employed, followed by aggravation of symptoms. There was external strabismus of the right side, right paraplegia, hemiplegia, and loss of sensation on the left side, clonic spasms, swallowing difficult, etc. The skull was opened over the second convolution according to Chauvel's method. Abundant sero-purulent fluid was found. There was temporary improvement, but death took place on the sixth day. *Post-mortem* examination showed evidence of diffuse cerebral abscess.

Hicquet.

Schmiegelow, E. (Copenhagen).—*Contribution to the Surgical Treatment of Ear Diseases.* [“Arch. of Otol.”, Oct, 1892.]

THE relation of the “attic” to Shrapnell's membrane, and its division into an outer and an inner part, are described. The outer portion is often the seat of suppuration apart from the rest of the tympanum. It is very rarely affected in acute otitis (scarcely 1·6 per cent.), but very commonly in the chronic forms (13·5 per cent.). In the latter cases the course is exceedingly slow until the sudden occurrence of endocranial or pyæmic complications. They are often associated with the formation of cholesteatomata. The treatment must therefore be energetic. Ordinary injections are useless. Injection through the perforation by means of Hartmann's or Schwartze's tympanic canula, enlargement of the opening by means of the galvano-cautery and application of nitrate of silver fused on wire, constituted the treatment in fifty-four cases. In twelve the result was unknown, in sixteen there was a cure, in eleven improvement, and in fifteen no benefit. Excision of the membrane and ossicles, particularly the malleus and incus, was required in twenty cases. In fourteen the malleus was carious, and the incus was similarly diseased in all the cases in which it was removed. There was a cure in nine cases, improvement in eight, no effect in two, and no known result in one. The hearing was improved in ten, unaltered in six, and slightly diminished in three. When suppuration still persisted it was usually on account of caries of the walls of the attic or cholesteatoma in the mastoid antrum or cells. He then employed Wolf's and Küster's operations, but now prefers Stacke's proceeding, which he has carried out eight times.

Dundas Grant.

Pepper, A. J.—*Two Cases of Mastoid Disease.* [“The Clinical Journal,” Feb. 1, 1893.]

Two typical cases of mastoid disease following chronic suppurative middle-ear disease are narrated. The importance of earlier recourse to surgical interference in such cases is insisted upon. Two definite conditions which should at once determine an operation are:—(1) Where there is long-continued aching pain, with tenderness over the mastoid, even in the absence of suppuration or œdema external to it (in most of these cases there is distinct tenderness upon *percussion*). (2) When a mastoid abscess has burst, or has been opened, exploration can do no

harm, and in the majority of cases evidence will be obtained which will lead to farther operating, for in the greater number of cases abscess over the mastoid means destructive disease within.

W. Milligan.

ASSOCIATION MEETINGS.

PARIS SOCIETY OF LARYNGOLOGY, OTOLOGY, AND RHINOLOGY.

December 7, 1892.

Empyema of the Frontal Sinuses—Trehphining—Cure by first intention.
By Dr. VALUDE.

The patient, aged twenty-three, presented a small soft tumour of the size of a small nut at the upper portion of the internal angle of the orbit, under the orbital arch. It was fixed, non-pulsatile, and the skin covering it was normal. There had been for months constant and violent frontal pain, and a discharge of mucus-pus from the nose.

An exploratory incision confirmed the diagnosis of empyema of the frontal sinus and subcutaneous abscess, and the introduction of a probe enabled the author to penetrate to the bottom of the ethmoid cells and to find a long osseous substance.

The latest works upon the treatment of the condition (Guillemain in the "Archives d'Ophtalmologie," 1891, and the thesis of Derchen, 1892) consider that empyema of the frontal sinus can only be treated in three ways.

1. By antiseptic tamponing (*bouvrage*) of the cavities of the sinus.
2. By orbital drainage.
3. By drainage through the fronto-nasal canal.

The first method may give rise to great pain, and cause retention of matter. Both the other methods may yield results, but only after a long time, even months as Guillemain says. The fronto-nasal canal is so very narrow (two to three millimetres in the dry state) that one may ask what good drainage can do in a small space fifteen millimetres long, and what can be accomplished by irrigation of a sinus full of septa and anfractuositites. Orbital drainage offers no less difficulties. It is easier to infect the sinuses by a drainage tube put into communication with the exterior than to disinfect by defective irrigations.

The author made a V-shaped incision at the internal and superior angle of the orbit, one branch of the V following the superior orbital ridge, the other the back of the nose. The abscess was then exposed and a trephine about $1\frac{1}{2}$ centimetres in diameter was applied at the angle formed by the orbital ridge and back of the nose. On opening the mucous membrane a quantity of viscous pus was extruded from the upper part of the sinus. A canulated sound introduced into the cavity showed that a large

communication existed between the right and left cavities. The sinus was very much dilated, and the sound penetrated upwards for from five to six centimetres.

The osseous bridge separating the crown of the trephine from the orifice of the orbital abscess was gouged, giving a large opening; abundant sublimate irrigations were employed, the mucous membrane was lightly curetted, and a double and large drain was placed in the sinus. The rest of the wound was sutured and an iodoform dressing applied. This was removed five days after the operation. Reunion was complete and the sutures were withdrawn. No pus issuing from it the drain was removed, an iodoform insufflation being applied as a measure of precaution. Complete cicatrization followed and cure was completed.

Dr. Ruault reported that all trace of the lesion of the nasal mucous membrane had disappeared. Where there is no affection of the neighbouring bones and cavities the author believes that drainage tubes may be dispensed with, and disinfection can be performed in one sitting, the maintenance of a drain being more likely to lead to infection.

The Mechanism of Deglutition and Opening of the Eustachian Tubes in a Patient without Palate. By Dr. BONNIER.

The patient was a syphilitic, in whom the naso-lobar cartilages had disappeared, a great part of the vomer posteriorly, the posterior third of the skeleton of the palatine vault, and the arch of the palate. The pterygoid apophyses were not palpable to digital examination, in spite of the ease of exploration. There were no pillars properly speaking, but from the lateral regions of the arch descended a thick fleshy band, forming a loop by which the inferior and posterior portions were continuous with the arytenoid region, separating the pharynx completely from the epiglottic region. The epiglottis—very small—closed the larynx, and hid it from complete examination.

It was sought to determine whether the tubes opened spontaneously independently of deglutition. A nasal sound was emitted and strong yawning without ceasing phonation.

Tympanic auscultation allowed to be heard a far-away sound, which at the moment of yawning suddenly became nearer, intra-tympanic strongly resonant and accompanied with trepidation of the movable part of the drum as in autophonics. On drinking water, the pharyngeal bruit of deglutition was heard immediately in the drum, the more at this moment the tympanum of the observer was strongly solicited outwards, *i.e.*, as that of the patient was drawn inwards by the sudden lowering and intra-tympanic pressure produced by the pharyngeal vacuum. This aspiration was much more sensible than that which precedes the re-establishment of normal pressure in a subject in possession of a palatine apparatus, and resembled what is observed in Toynbee's experiment. The tubes, therefore, opened during deglutition, and the drum participated in the pharyngeal vacuum which the action of the palate could not explain in this case.

Examining the patient during yawning revealed no movement of the anterior and inferior region of the tubes, and no contraction of what

remained of the peri-staphyline muscles. The pharyngo-tubal fold, however, became prominent, and under the action of the pharyngostaphyline muscle the orifice was lowered and drawn inwards. Auscultation showed that autophonia coincided with this isolated action of the pharyngostaphyline muscle upon the tubal orifice.

The ordinary mechanism for the production of a vacuum could not be invoked in the absence of the palate, and it was seen to be obtained, after many imperfect attempts at deglutition, by approximation of the nasal alæ to the septum, a vacuum in the whole nasal-pharyngeal space being produced at the moment when deglutition was performed. The patient overcame unsuccessful efforts by pinching the nose, when he could swallow with success. Thus the tubes could open during the ordinary phenomena of yawning and deglutition in the absence of the peri-staphylines and palatine aponeurosis.

It was probable that the muscle of the stapes could exaggerate its action to oppose the labyrinthine compression under the centripetal shock of the tympanic membrane, aspirated within by the vacuum of deglutition, for no vertigo or tinnitus were remarked at any time, or particularly at the moment of deglutition.¹

Note on a Sign of Suppuration of the Anterior Ethmoidal Cells.
By Dr. A. RUAULT.

When electrical transillumination is practised after the Voltolini-Heryng method, in subjects healthy and possessing normal translucidity without modifications due to anomalies of conformation and thickness of the osseous walls, a certain number of zones exist in the adult more strongly illuminated than the neighbouring parts. When the lower part of the face corresponding to the dental arches and the alveolar borders of the superior maxilla is very clearly illuminated, the middle part of the cheeks is darker as far as the inferior orbital arch, and above this there is a zone more clear, in the form of a cross, answering to the lower eyelid. But when an electric lamp giving sufficient light is employed and applied in a certain manner, there is on each side at the level of the nasal bones a clear zone, irregularly oval, less bright than the neighbouring palpebral region, but clearly distinct from the other darker parts. These clear zones are often absent when the lamp is placed in the middle of the mouth on the median part of the back of the tongue, for, according as the subject has a narrow nose, or tumefaction of the inferior turbinateds, the illumination of the upper part of the nose is poor, the luminous rays, having traversed the palatine arch at the level of the floor of the nasal fossæ, are arrested by the projection formed by the turbinateds, especially the inferior. But if care is taken to place the lamp in the mouth laterally, i.e., below the lower wall of the maxillary sinus and not below the floor of the nasal fossæ, the region of the proper bones of the nose is clearly illuminated, the luminous rays traversing the maxillary sinus and the anterior ethmoidal cells. This fact has not yet been noticed, probably because observers have been directing their attention to examination of the transparency of the cheeks and lower eyelids, but it is easy to see if

¹ This observation was made in the clinic of Prof. Dieulafoy (Necker Hospital).

a lamp of sufficient intensity is employed. In the author's opinion the presence of obscurity of the region of the nasal bones in a subject presenting a purulent flow from the meatus of the same side, at the same time as translucidity of the corresponding maxillary sinus, is a diagnostic point of great value. It indicates suppuration in the region of the anterior ethmoidal cells, whether primary or secondary to inflammation of the frontal sinus. He has found this sign present a number of times in patients with inflammation of the frontal and ethmoidal sinuses, and in those with syphilitic lesions of the same regions, and although he is far from attributing a pathognomonic value to it, he considers it to be a sign the detection of which should not be neglected.

MEDICAL SOCIETY OF VIRGINIA.

September 13, 14 and 15, 1892. ("Med. Rec.", Oct. 8, 1892.)

Discussion on Vertigo.

The discussion on this subject was opened by Dr. E. T. BRADY, of Marion. After remarking upon the nature of vertigo in general, he stated that the causes were gastric, cardiac, cerebral, laryngeal, ocular, aural, toxic, epileptic, and essential. Laryngeal vertigo he regarded as another form of epilepsy, and believed that it would eventually be found that the toxic form was the most common. He believed that a far greater number of cases were attributable to nervous causes than to disturbance of the intra-cranial circulation. There are three causes that might affect the nerves, namely, (*a*) the direct mechanical or chemical effect of poisons, or imperfectly oxidized materials accumulating in the blood : (*b*) pressures upon centres governing the equilibrium, and (*c*) reflex from acute localized inflammations, the equilibrial centres being disturbed by unusual impressions caused by the reflection from associated nerve-fibres. In speaking of the gastric form, he called attention to the fact that it was not accompanied with violent indigestion, but that digestion was prolonged or delayed. This he regarded as the most common form. He called attention to the fact that deaf-mutes were free from vertigo, and seemed to infer from this that the sense of hearing enters largely into the causation of this condition. He omitted epileptic vertigo as being a form of epilepsy, and deserving a more detailed treatment than could be accorded it in such a limited space of time. He recommended cocaine locally in Ménière's disease, and suggested the advisability of producing deafness in obstinate cases.

Dr. WILLIAM C. DABNEY (University of Virginia), after remarking that vertigo is often due to toxic principles in the blood, recommended small doses of one-tenth grain of morphine, as affording temporary relief in some forms of renal vertigo especially. Of course the most important point in all these cases is to remove the cause.

Dr. BEDFORD BROWN (Alexandria) said that vertigo is not a disease, but rather the manifestation of disease, usually functional, sometimes organic, and then again of purely sympathetic origin. It may arise from morbid conditions of the circulation of the nervous system of the most

opposite character. It often precedes death from post-partum or other uterine haemorrhage. Some of the most violent types of vertigo are associated with the hysterical state. Alcohol and tobacco are fruitful causes of vertigo through their poisonous action on the brain and sympathetic system. Indigestion of a transient character and protracted dyspepsia, such as biliousness, cause sympathetic vertigo. Then we have an explosive form of vertigo due to blood poisoning, as seen during the progress of uræmia—coming and going in rapid succession. The therapy is as diverse as the causes are varied. Antiphlogistics, such as cathartics, and a simple diet, are demanded when vertigo is associated with plethora or congestive tendencies. In cases of high arterial tension, due to hypertrophy of the left ventricle, digitalis and nitro-glycerine are of use. Iron and strychnine almost invariably relieve cases associated with anaemia. Full doses of valerianate of ammonium and bromide of sodium give prompt results in the hysterical and nervous forms of vertigo. For the vertigo of Bright's disease, nitro-glycerine ($\frac{1}{60}$ th gr.) three times daily, with saline aperients and diuretics, are of service. Among the very best eliminant diuretics in these cases is diuretine or the salicylate of theobromine, in doses of two to five grains every two or three hours, in capsular form. In "bilious vertigo" acid fermentation and putrefactive action should be corrected by alkalies, and then hydrochloric acid, pepsin, strychnine, and bismuth subnitrate should be given. In nervous, feeble constitutions pills of valerianate of iron, quinine, and zinc produce admirable effects. When the tendency to vertigo is marked and persistent, the urine should be tested for albumen, casts, and sugar. The speaker had never seen a case of chronic nephritis or diabetes mellitus that was not accompanied with more or less vertigo.

Dr. JOSEPH WHITE (Richmond) remarked that aural vertigo accompanies such troubles of the ear as hyperæmia, anaemia, and apoplectiform troubles of the labyrinth (Ménière's disease), which are usually associated with corresponding alterations in the brain. Ophthalmic vertigo is due to lack of co-ordination of the ocular muscles. Nasal vertigo has been reported by a number of authors, who assert that the intra-nasal changes by way of Meckel's ganglion cause localized vaso-motor alterations and anaemia in the brain. But Dr. White believed all such cases to belong to the category of "aural vertigo." Charcot first used the name "laryngeal vertigo" to designate laryngeal spasm followed immediately by vertigo and loss of consciousness. A patient in apparent health is suddenly seized with a mild tickling or irritation of the larynx, which produces a slight cough. Obscurity of vision and dizziness immediately follow, and he falls into a state of complete unconsciousness of only a few seconds' duration. Ordinarily there are no premonitory symptoms and no assignable cause. In mild cases unconsciousness may not occur. The semblance to epilepsy is such that some observers style it "laryngeal epilepsy." The laryngeal cavity rarely presents evidence of lesion, although some cases have seemed to depend upon a catarrhal laryngitis.

Dr. JOSEPH PRICE (Philadelphia) remarked upon some cases of vertigo following prolonged haemorrhage, as in tubal pregnancy, neglected polypi, etc.

Common-Sense in the Treatment of Discharge from the Ear.

Dr. ALEXANDER DUANE (New York) presented a paper with this title. After enlarging upon the importance of the subject to the general practitioner, he contended that the therapeutic principles to be enforced here are the same as those governing the treatment of suppuration anywhere else, and are comprised in the words cleanliness, drainage, and the removal of hopelessly diseased tissue. These indications are best fulfilled by thorough irrigation with some cleansing fluid, the best one for the purpose being a weak solution of common salt. Politzerization to force out the residual discharge may be used as an adjuvant to the syringing. If these methods do not suffice for a cure, astringent powders (boric acid, alone or combined with zinc oxide) may be used, but only in connection with thorough cleansing by preliminary irrigation. Granulations and polypi must be carefully removed, the operation being done by a good light and with the patient fully under control. Any tendency of the granulations to recur must be checked by the instillation of alcohol with or without the addition of corrosive sublimate. In the case of caries, iodoform is useful. These procedures, combined with suitable constitutional treatment, will usually succeed unless there is extensive caries, or unless drainage is prevented by the situation of the disease (in the attic), or by inflammatory hypertrophy and swelling. In this case resort should be had without delay to removal of the obstructing and diseased parts by a radical operation. By following out the treatment thus outlined the author believed that in nearly every case of chronic suppuration the disease can be cured, the danger of cerebral involvement be averted, and the necessity of doing a mastoid operation be done away with altogether.

REVIEWS.

Ruault.—*Maladies du Nez et du Larynx* ("Diseases of the Nose and Larynx"), by Dr. A. RUAULT. Vol. IV. of the "Traité de Médecine," edited by Drs. CHARCOT, BOUCHARD, and BRISAUD, &c. (G. Masson, 1892.)

WE have already noticed the first fasciculus of this important work, which dealt with diseases of the mouth and pharynx, and we took occasion to speak in high terms of commendation especially of the section dealing with diseases of the pharynx and diphtheria. Seventy-one pages of the present work deal with diseases of the nasal fossæ. The first chapter is occupied with the discussion of circulatory affections, which comprise hyperæmia, haemorrhages, and epistaxis. Of the former due notice is taken of the passive form of distension of the subcutaneous veins of the root of the nose as a sign of naso-pharyngeal disease, and amongst active hyperæmias of general but especially circumscribed congestions of the nasal mucosa in neuro-arthritis and gouty subjects, which may be bilateral, and affect only the anterior or posterior two-thirds of the nasal fossæ. In other subjects these congestions may be unilateral,

and affect first one side then the other, but generally the inferior turbinated, and especially its anterior extremity. Turgescence of the venous sinuses of the deep layer may exist without congestion of the superficial layer, even with ischæmia of this region, from which we may infer with probability the existence of independent vaso-motor filaments for each region.

The subject of hyperæmia is very completely dealt with, and the author recommends for treatment cauterization or insufflations of menthol or cocaine powders.

The subject of epistaxis is very fully discussed and presented clearly. Rightly the author considers it only a symptom, and its relation ought to be determined to various morbid local and general conditions, and its diagnostic and prognostic value appreciated. Hæmorrhage from the nose lasting from five to fifteen minutes, during which the patient loses from fifty to one hundred grammes of blood, may be considered of average intensity. If it lasts for half-an-hour or more, and the patient loses from two hundred and fifty to four hundred grammes, it is an abundant epistaxis. Above this figure it is serious. It is rare for the hæmorrhage to surpass one thousand two hundred grammes, and one thousand five hundred, two thousand, and two thousand five hundred grammes of blood lost can only very exceptionally occur without death, immediate or consecutive. No credence is to be attached to the cases reported of losses of blood above three kilogrammes.

While death is fortunately very rare from sudden epistaxis in healthy persons, it is not exceptional in cases of repeated epistaxis, which lead to anæmia, profound weakness, and cachexia. The origin of epistaxis in thrombus and ulcer of the septum, and eczema of the vestibule and simple lesions, is reviewed, as also is that curious affection perforating ulcer of the septum and as a complication in various morbid general conditions, such as diseases of the liver, heart, kidneys, respiratory organs, etc. The author states that during the recent epidemic of "grippe" he has observed a number of cases of epistaxis which were always controlled by rather large doses of quinine. Several pages are devoted to the diagnosis and treatment of epistaxis, the importance of an accurate estimate of the former being necessary from the fact that the surgeon should not be in too great a hurry to arrest a salutary epistaxis, and never wait before obtaining haemostasis until symptoms have arisen from too great loss of blood. Such salutary epistaxes occur in some acute disorders (pneumonia, facial erysipelas, etc.) when they are critical, and in conditions when bleeding is indicated (renal or cardiac disease). With free ventilation, clothes loosened about the neck, the head directed forwards, tampons of cocaine are first to be applied (ten per cent). If this fails to arrest or check the hæmorrhage after from four to five minutes, neither antipyrin, nor irrigations with cold or hot water, nor ice to the neck, dorsum, etc., nor hot pediluvia, will be more effective.

Ruault relies on cocaine before all other means. He rightly rejects coagulative haemostatics, like perchloride of iron. Next, compression must be adopted or tampons, and anterior tamponing is usually effective enough without the necessity of tamponing through the mouth and

posterior nares. Tampons impregnated with aristol may remain three days in the nares without any bad odour or infection, but it is seldom that these tampons should be left in longer than from thirty-six to forty hours.

In repeated epistaxes, especially where there are lesions of the septum, Dr. Ruault energetically protests against the use of the cautery, preferring the lubrication of the parts with vaseline, applied with a spatula, three times daily until the erosion is healed. Simple perforating ulcer is easily cured by salol in vaseline, or white precipitate used continuously for from fifteen days to three weeks.

Nervous affections, anosmia, hyperæmia, parosmia, cacosmia, anaesthesia, hyperesthesia, paræsthesia, neuralgia, reflex hyper-excitability occupy Chapter II. As to the association of polypi with asthma, Ruault believes himself to have radically cured some cases by intra-nasal treatment, to have temporarily cured some others, and many others have only experienced indirect benefit, *i.e.*, relief to nasal obstruction but not disappearance of the asthma. In two cases the latter was distinctly aggravated after surgical intervention. He thinks that the number of cures would be greater if our methods of rhinological therapeutics were more perfect. In one case where removal of polypi did not cure the asthma, operation upon empyema of the antrum effected improvement, and the condition of this sinus might always be enquired into in asthmatics with polypi. Cure of the asthma is not always cure of the patient; other neuroses may replace the asthma. Ruault thinks that many asthmatics are hereditarily neurotic, and the asthma is only one symptom of a general condition, but it would be absurd to condemn the patient to systematic abstention.

Chapters follow upon acute nasal catarrh, hay fever, and chronic coryzas, with an especially good section dealing with atrophic rhinitis, and these close the section dealing with nasal disorders. It is not a complete treatise upon diseases of the nose, but the subjects with which it deals are well selected, and clearly and concisely written.

The second portion of the book comprises diseases of the larynx. Chapter I. is occupied with the consideration of anaemia, hyperæmia, œdema, and haemorrhage. Chapter II., which is the most important in this volume, deals with nervous affections. A very full and critical survey is given of the subjects of abductor paralysis and adductor spasm, which have provoked so much discussion, and Ruault is led to the conclusion that it is most probable that irritation of one recurrent nerve, such as is produced by slight compression, induces spasm, convulsion, or intermittent tonic contraction of a cord, lasting for a short time, rarely more than a week, that these accidents may disappear with their cause, and recur and disappear, but if the pressure continues it very rapidly determines a paralysis, limited at first to the dilator muscle; and if the pressure is from the first sufficiently severe it determines sudden paralysis, either limited at first to the dilator or immediately generalized.

Ruault objects to the use of the expression "cadaveric position" of the cords so customarily employed. *Post-mortem* all the muscles are in a state of inertia, during life there is the tone of the crico-thyroid, the thyro-arytenoid, and the arytenoideus to prevent the real "cadaveric" position

ever being reached. The position is, moreover, *not* midway between deep inspiration and phonation, as Ziemssen described it when he gave this name to it. An interesting chapter on laryngeal vertigo closes the section upon nervous diseases, the author having been fortunate enough to see five cases in his own practice during the last three years. Chapter III. deals with laryngitis, acute and chronic, chapter IV. with syphilis, and chapter V. with phthisis of the larynx. We are glad to find the author adopt the view that certain forms of laryngeal phthisis are curable, and that no patient should be condemned to therapeutic inactivity, an opinion which accords entirely with our own experience.

This second volume of Dr. Ruault's work is quite up to the standard of the first volume. The matter is sound, the diction forcible and elegant, and the method of presenting the various subjects scholarly, and though not a complete treatise upon diseases of the mouth, pharynx, nose, and larynx, it is full and complete as to the subjects with which it deals, and we know of no better or more interesting contribution to special literature than Dr. Ruault's work.

R. Norris Wolfenden.

Von Krafft-Ebing.—*Psychopathia Sexualis, with especial reference to Contrary Sexual Instinct: a Medico-Legal Study.* By Prof. R. VON KRAFFT-EBING. Authorized Translation from the seventh enlarged and revised German Edition. By Dr. CHARLES GILBERT CHADDOCK. Philadelphia and London : The F. A. Davis Company. 1892. Pp. 436.

THIS book reveals instances of human depravity, of bestiality and offences against nature, which we could scarcely credit were it not compiled by an earnest and scientific professor of psychiatry. It is emphatically not a work to be put into the hands of any but the few, but to the earnest practitioner it will reveal many things to which his mind is a stranger, instances of moral perversion of which he now and then meets, however, with singular examples. To the alienist the translation of the work will be most acceptable. Prof. Krafft-Ebing deserves great credit for attacking such an unsavoury subject in a scientific manner, and the translator and publishers deserve equal credit for their courage in presenting this unique study in an English dress, and not less for the manner in which the work has been executed.

R. Norris Wolfenden.

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**A PORTION OF BEEF BONE LODGED IN THE LARYNX
FOR NEARLY A MONTH, AND REMOVED
WITH FORCEPS.**

SIR PHILIP CRAMPTON SMYLY (Dublin).

(*Reported by Mr. TENISON LYONS, and by Miss D., daughter of the Patient.*)

MRS. D., when taking some beef tea on the 8th December, 1892, swallowed a bone. A doctor probed it, and gave her two emetics; no bone appeared, and patient suffered greatly till the 12th December, when she was admitted to Wellington House, Harcourt Street. On admission she was very weak, and breathing very distressing. She was placed in a tent bed, with a steam kettle; two leeches were applied to her throat. By the end of the week patient was up, and able to take solid food; she expressed herself greatly relieved, and improved so rapidly that she was allowed to go home on December 19th, though she still felt stings in her throat, as if something was still there.

"For two days she was able to enjoy her usual meals. The third day she was very unwell, and rapidly got worse, suffering greatly from her throat and distressed breathing, especially towards evening. The morning of the 30th she was much worse, and was brought over in a cab to Dr. Ormsby's house, where her throat was examined, and Dr. Ormsby advised her to return to Wellington House, where she remained under treatment for a week, getting very little sleep, but on January 5th she spent such a fearful night with spasms of the throat that Dr. Ormsby, on the 6th, asked Sir Philip C. Smyly to see her."*

On examination with the laryngoscope the larynx appeared congested

* Miss D.'s report.

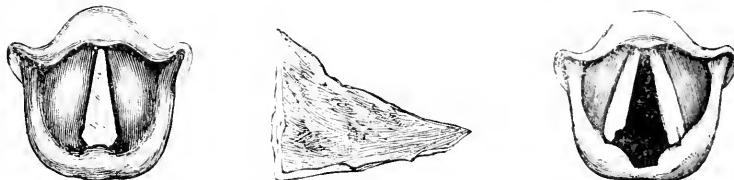
and red, the vocal cords very red, but quite distinct, and just below them a narrow foreign body extending from between the arytenoids to the angle of the thyroid in front, and about the eighth of an inch broad.

Sir P. C. Smyly caught the foreign body with a curved forceps, but was not able to move it, and the patient became unconscious, and had to be lifted on to her bed. Tracheotomy was at once performed. Her consciousness returned, and by signs she signified that she was relieved. The instruments used were Worthington's knife, with director on the back, and Durham's trachea tube. The room was kept at a temperature of 70°.

January 7th. She passed a good night.

January 8th. Patient going on well. Tube occasionally blocked with mucus, but easily cleared.

January 9th. Passed a fairly good night. At 12.45 the throat was sprayed with a four per cent. solution of cocaine hydrochlor. and the larynx brushed with a ten per cent. solution of cocaine five or six times. At 1.30 Sir Philip Smyly, having the patient seated on a chair, with the long forceps caught the foreign body, which was so firmly fixed that he was unable to move it—the forceps slipped off several times. He then took a stronger forceps, saying, "I will try once more before doing a thyrotomy." This time the foreign body came away, but the forefinger



of the left hand had to be employed to push the arytenoid commissure over the end of the foreign body before it was free. It was a triangular piece of bone which measured one inch and one sixteenth by fifteen sixteenths of an inch, and the third side thirteen sixteenths, and in thickness measured three sixteenths to one sixteenth. The local anesthesia was very satisfactory; the ten per cent. solution was applied twice during the attempts at removal, which altogether took about twenty minutes. The patient was put to bed, and some light nourishment and a little stimulant was given. 5 p.m., spasmodic cough very troublesome; temperature, 102°; pulse, 98; respiration, 26.

January 10th. After 2 p.m. slept for about three hours. 9 a.m., temperature, 102°; throat very painful, cough troublesome, and swallowing difficult. 9 p.m., temperature, 99.8°; pulse, 82; respiration, 24.

January 11th. 9 p.m., very quiet day; cocaine spray discontinued; temperature, 97.6°; pulse, 80.

January 14th. At 1 a.m. the tube suddenly became blocked, and the obstruction did not come away when the inner tube was removed. A piece of rubber tubing was passed down the outer tube beyond its extremity; when this was withdrawn the patient coughed up a plug of dried mucus, and then passed a quiet night.

January 16th. As the patient was able to breathe naturally when the finger was placed on the orifice of the tracheal tube, Sir P. C. Smyly, at 1 p.m., removed the tube, and dressed the wound with boric acid, gauze, and wool.

The laryngoscopic examination showed the parts all healthy and free from inflammation, with the exception of the right vocal band, which had been torn near to its arytenoid insertion.

February 2nd, 1893. Mrs. D. called to show her throat. It is now perfectly healthy, except a very small notch in the right vocal cord. Her voice is slightly husky.

[P.S.—I have to thank Mr. Tenison Lyons for the care with which he watched over this case, and for the careful notes he has given me for this report.—*Philip C. Smyly.*]

ANNOTATIONS.

MALIGNANT TRANSFORMATION OF INNOCENT GROWTHS.

IN the February number of our Journal a reference was made to the paper published by Dr. Balloch on this subject on account of the interest taken in the subject at the present time. The annotation in question was in no sense a review of the subject, but merely a passing reference to the work of the author. It has been pointed out to us, however, that the references to Dr. Semon's work therein might be misleading, and Dr. Balloch's paper refers to the rough estimate made from a collection of 3000 cases in 1887 by Dr. Semon, and not to his complete work of 1888. Dr. Semon's original papers have shown that malignant degeneration of benign growths is not a frequent occurrence after intra-laryngeal operation, although it would be unfair to say that he has ever denied the fact of the influence of irritation upon the production of malignant degeneration. In fact, he has stated the reverse. We should be sorry that an annotation of ours should lead anyone to think otherwise, that he has claimed an immunity for the larynx in this respect, or, in fact, that his opinions as far as the larynx is concerned are opposed to the generally accepted views of surgeons and pathologists on this question. Dr. Semon has arrived at very much the same result in the special department as Dr. Balloch in a wider field, and it would be matter of regret to us if the annotation in question were to lead to any misapprehension in the matter. We desire, therefore, to place these statements before our readers.

THE INTERNATIONAL CONGRESS OF ROME, 1893.

ACCOMPANYING this meeting, which will take place in September, there will be an International Exhibition of Medicine and Hygiene, which will be open from the 15th of September to the 15th of October.

The sections of Laryngology and Otology will be under the presidency of Prof. Massei (Laryngology) and Prof. E. de Rossi (Otology).

In the laryngological section the following subjects have been announced for discussion :—

1. The comparative value of electrolysis and other surgical methods of treatment of deviations of the nasal septum.
2. Pachydermia laryngis.
3. Indications and local treatment of laryngeal tuberculosis.
4. Intubation of the larynx in the adult.
5. Motor innervation of the larynx.

Dr. Mount Bleyer will give a demonstration of the phonograph and its applications to medicine.

THE FRENCH SOCIETY OF LARYNGOLOGY AND RHINOLOGY.

THIS Association will meet on the 17th of May, at nine a.m., at the Palais des Sociétés Savantes, Rue Poitevine.

The following subjects are announced for discussion :—

1. Treatment of otorrhœa. Drs. Miot (Paris) and Polo (Nantes).
2. Treatment of laryngeal tuberculosis. Drs. Castex (Paris), Garel (Lyons), and Moure (Bordeaux).
3. Affections of the accessory cavities of the nose. Drs. Cartaz (Paris) and Lacoarret (Toulouse).

It is asked that communications be sent in to the secretary by the 25th of April.

SECTION OF GENERAL MEDICINE OF THE PAN-AMERICAN MEDICAL CONGRESS.

WE are requested to make known the following invitation to the medical profession to join this section :—

"This unique assemblage promises to be one of the most important events that has occurred in the history of medicine in the Americas. Its success is assured by the large number of valuable papers already promised. The section on General Medicine, which is one of the most important that has been created, bids fair to be one of the most successful in the entire Congress, and already many valuable contributions are in process of preparation, and will be read at the meeting in September. It is hoped, with the hearty co-operation of all physicians living not only in North, but also in South and Central America, that the work in this section will be memorable, and each physician living on this continent is requested to join this most important section, and to prepare a contribution to be read before that body. It is especially requested that those intending to join this section or to read papers will at once send their names, with titles of papers, to the secretary, Dr. Judson Daland, No. 319, South Eighteenth Street, Philadelphia, Pennsylvania, so that they may be noted on the calendar and given their appropriate places."

WE greatly regret to lose the valued co-operation of our colleague, Dr. HUNTER MACKENZIE, of Edinburgh, who has through ill-health been compelled to relinquish some of his literary work.

THE BRITISH LARYNGOLOGICAL AND RHINOLOGICAL ASSOCIATION MEETING.

Friday, March 10, 1893.

Dr. SANDFORD, President, in the Chair.

Mr. LENNOX BROWNE.—*A Case of Lupus of the Palate, Tongue, Larynx and Nose.* (Reported by Dr. Holloway, Registrar.)

The patient, unmarried, aged twenty-four, was admitted into the Central London Throat, Nose and Ear Hospital, on the recommendation of Dr. Morison, of St. Albans, on October 31st, 1892, under the care of Mr. Lennox Browne.

Her history previous to the time she came under his care is briefly as follows : Born in Montagis of French parents, she resided there until five years of age, and after staying at Troyes for another year, she came to England, and lived at St. Albans until two years ago, when she removed to Bedford, and resided there up to the time of her admission to the hospital. Her occupation for the last few years has been a teacher of French. Her father is still living, and in good health at the age of sixty-three. Her mother died of phthisis seven years ago. One of her brothers died when twelve years old, and another when an infant, but the patient is unable to state the causes of their deaths. No history of any other member of her family being phthisical or suffering from lung disease can be elicited from the patient.

History of Present Illness.—Shortly after going to live at Bedford, two years ago, the patient found that her voice was failing : it became weak, wanting in tone, and husky. This symptom was followed by "a sore mouth," the roof being the first part affected. The tongue was the next and its sore and tender condition was attributed (according to the patient) by the family doctor "to the English food."

A month or two later, the patient found that she had "sore places" on the inside of both cheeks, and still more recently, during last autumn, a sore spot appeared on the edge of the left ala of the nose : this was put down to the "cold wind" which prevailed at the time.

The patient was under medical observation for "more than a year," but during that time her mouth, throat, and interior of the nose had never been examined. She had a slight cough last winter, but without much expectoration or haemoptysis. She states that her health was good up to this time, but that during the two months previous to her admission to the hospital, she had lost flesh, but not to any great extent. She has never had any fever, or serious illness, except "peritonitis" when about nine years of age.

Physical Examination on Admission.—Well developed and well nourished, somewhat pale and anaemic.

Heart sounds normal, pulse regular, 82, slight haemic *bruit* heard over the pulmonary area.

Lungs: expansion, equal; percussion note good, resonant.

V.R. and V.F. equal on both sides. No abnormal sounds.

Voice: weak, husky, and harsh, at times high pitched.

Catamenia: regular, but rather profuse, lasting seven days and very painful, for the last two years.

The patient says "she always feels worse at these periods."

Senses of smell and taste not affected.

The Tongue: at the tip and sides for three-fourths of its length presents a rough, irregular, granular surface, studded with small dull-red nodules, soft to the touch, not very painful nor readily bleeding. The upper surface of the tongue is slightly furred in the centre. On the inner surface of both cheeks, extending from the alveolar ridge upwards and backwards, a similar, irregular and nodular appearance is seen, which can be traced to the anterior pillars of the fauces.

On the left side is a deep fissure, and the whole of the affected surface is clouded by a whitish deposit which partakes of an almost aphthous character. On the upper part of the hard palate at its junction with the soft palate, and to the right of the uvula, are two small oval patches of granular nodules, slightly raised above the normal mucous surface, and sometimes glazed with similar white deposit to that observed in the cheeks.

Just below the ala of the left nostril there is a brownish-red nodule, and on the inner surfaces of both alæ nasi the mucous membrane is infiltrated and nodular, of reddish colour, and in some places covered with greyish-brown crusts, which, when removed, show an ulceration and bleeding surface beneath.

Larynx: is not greatly congested, and, unlike a case of tuberculosis, there is free definition of the ary-epiglottic fold, and the cartilages of Santorini are distinct, but the outline of those of Wrisberg is almost lost, and is merged into a nodulated new growth which springs from and extends right across the posterior commissure. It is larger on the right side than the left, and is cleft in the centre. The vocal cords are slightly congested, but there is no ulceration.

The appetite is poor, but there is no evidence of gastric disturbance, nor any irregularity in the action of the bowels. The cough is slight, the sputum almost *nil*; a small portion obtained on microscopical examination reveals no abnormal appearance, and most careful search fails to detect bacilli.

Urine: The average quantity passed daily is between 30 and 35 ozs., specific gravity 1.025 acid, no deposit, no albumen.

Treatment.—Cod liver oil was ordered, and the granulations were scraped at first twice a week, after which lactic acid was applied, the parts having been previously painted with a ten per cent. solution of cocaine.

On November 2nd Mr. Lennox Browne removed two small portions of granulation tissue from the larynx, which, on microscopical examination, were found to consist of ordinary granulation tissue, blood cells,

small round white cells and epithelial cells. No bacilli or giant cell structure was demonstrated.

On November 4th the nodule below the left ala was also scraped with the curette, and its microscopical appearance was of a similar nature.

By November 14th the external ulceration on the nasal region had entirely healed, and the cicatrix was firm. Mr. Lennox Browne also noted that the laryngeal appearance was much improved. At this time it was noticed that the treatment of the nostrils by curetting and lactic acid was followed by a slight serous discharge from the right nostril.

The patient left the hospital for about ten days at the end of December, but returned for further treatment early in January, when, as no marked improvement was evident, she was, in spite of the negative evidence of specific disease, ordered to take small doses of mercury in the form of lozenges. (Troc. Antim. Co.) The results of this treatment not proving satisfactory, Mr. Lennox Browne ordered a daily injection of tuberculocidin (Kleb's) which was commenced on March 3rd, one $\frac{1}{10}$ th gr. being the initial dose.

On the morning the treatment was begun the lungs were carefully examined and found to be healthy, the urine was free from albumen or other abnormal substances, the temperature was normal, the pulse 82, and respirations 19 per minute.

Injections were given on the 4th, 5th and 6th. On the 7th March patient began to menstruate, so no injection was given. No effects have been noted as resulting from these injections. On the second day (the injection being given at 9.30 a.m.), the temperature rose to 99.2 at 4 p.m., but declined to normal in the evening.

On March 8th the patient stated that she felt much better, her appetite had improved, she had no pain or smarting in the mouth, or soreness of the tongue at night, as was the usual case. The granular surface on the tip of the tongue is certainly less marked, and the two patches of ulceration on the soft palate are smaller and less prominent : there does not appear, however, to be any visible alteration in the condition of the nose.

On March 9th Mr. Lennox Browne noted that the inside of the cheeks was less cloudy in colour and less nodular in appearance. The alteration in the condition of the nose is by no means so marked, while the state of the larynx remains *in statu quo*.

It is of course too early yet to speak of the effect of the tuberculocidin.

Remarks by Mr. LENNOX BROWNL.—The chief interest of the case is in the etiology. It appears to be a favourable one for testing the value of tuberculocidin, and I am hopeful that the remedy, aided by the curette and lactic acid, may lead to some permanent good effects. The patient declares herself to be free from pain in the affected parts since the treatment by injection was commenced.

Mr. GEORGE STOKER asked if a specific history had been obtained, and if iodide of potassium had been tried. He observed that the condition was highly suggestive of a specific origin, especially in view of the appearance of inter-arytenoid thickening. He advised the inunction of mercury.

MR. LENNOX BROWNE said he had excluded the possibility of syphilis. He had exhibited iodide of sodium with negative results.

DR. WHISTLER did not think that the inter-arytenoid thickening necessarily indicated a specific taint, seeing that it occurred in so many forms of chronic laryngitis. He asked whether search had been made for the bacillus.

MR. LENNOX BROWNE said that an examination for bacilli had given negative results.

DR. E. WOAKES remarked that inter-arytenoid thickening occurred in nearly all chronic laryngeal cases, and was not necessarily indicative of syphilis. He did not consider the case to be one of either chronic laryngitis, syphilis or tubercle. As it certainly was not one of malignant disease, and as lupus had occurred elsewhere on the patient, he thought it was very possibly of the nature of lupus.

MR. STOKER said he had rarely seen cases of syphilitic laryngitis without this inter-arytenoid thickening, and he had come to regard that condition as characteristic of syphilis.

DR. DUNDAS GRANT pointed out that the progress of the case was strongly suggestive of its being lupus.

DR. MCNEILLI WHISTLER exhibited a *Case of Laryngeal Stenosis in a boy of fourteen.*

The history was to the effect that five years ago tracheotomy was performed for obstruction by a foreign body, which, fourteen days after, proved to be a cherry-stone. Complete restoration of voice and breathing space had never been obtained, although many dilating measures were from time to time employed. The laryngoscope revealed a tight cicatrical ring below the glottic level, and entire disorganization of the larynx proper. Two large symmetrical elevations occupied the position of the ventricular bands. The boy was wearing a soft rubber tube, and Dr. Whistler did not suggest any further operative interference, for, notwithstanding the restricted lumen of his glottis, his lungs were well expanded.

MR. LENNOX BROWNE observed that, in the absence of congenital defect, it was extraordinary that so much irritation should have resulted from so slight a cause. He suggested that the nasal obstruction might perhaps account for the unusual amount of irritation, and suggested that it would perhaps be well to give the lad a chance of breathing through the nose, by clearing the vault of the pharynx of his enlarged pharyngeal tonsil.

Two notes on Reflexes.

DR. WOAKES said it might be of some service if he placed on record two practical experiences which conveyed certain absolute clinical facts. The first case was one of "nasal cough." The patient was a young married lady who had been under treatment two or three years previously for nasal trouble, following recovery from a long and tedious illness. She subsequently married and enjoyed good health until, in the spring of last year, she fell a victim to influenza. Then she began to experience a return of her old nasal trouble associated with a good deal of constitu-

tional disturbance. The most prominent symptom was a constant and very harassing cough which gave her no rest, and was most irritating not only to herself but to those about her. On examining the nose he saw a fungating mass springing from the outer nasal wall in the ethmoidal region. In appearance it neither resembled polypoid tissue nor granular tissue, but it was compressible and of a light texture. He regretted he had not secured a piece of the growth for microscopical examination. The growth extended across the nasal meatus, which was capacious, and came into gentle contact with the septum. There, with every respiration it moved to and fro, so that the result was a constant tickling. With an electrode he pressed the growth back against the wall from which it grew, upon which it shrivelled up. As he did this the cough ceased and has not returned : that is to say, in so far as the peculiar irritative cough was concerned, though, of course, the patient from time to time suffers like most other people from passing bronchial irritation. It is, therefore, possible to get a cough directly dependent upon changes in the nose. No one present probably had any doubt on this point, but the connection in this instance was so obvious and striking that it merited to be placed on record.

The next case was that of a gentleman who suffered from inveterate asthma. He came some years ago on account of a distressing tinnitus, but he observed at the time that the asthma from which he suffered was constitutional. He treated the deafness, which was due to a large ethmoidal swelling, and the patient recovered his hearing and lost the tinnitus. He saw him from time to time and he always showed symptoms of asthma. One day last summer he came once more. He was so very ill that he had to be supported into the consulting room owing to intense dyspnœa, and he said he had come as a last resort, so intense and so menacing were the symptoms. He was propped up in the chair, and on examining him he found that the middle spongy bone, which he had previously treated, had since undergone considerable enlargement, and that a spur was projecting against the septum, impressing itself upon it near the centre, just behind the junction of the osseous and cartilaginous parts. It occurred to him that the then condition might be due to some spasmodic condition in addition to his ordinary bronchial affection, and that the spasm might not improbably be dependent on the pressure of this spur. With the patient's consent he removed the spur, thereby leaving a considerably enlarged breathing space. While doing this he noticed that the patient straightened himself in the chair, and at the same time there was a well-marked improvement in the breathing. Soon after he began to talk and had apparently forgotten all about his distress, the breathing being comparatively comfortable. This was not an imaginary relief, but a positive and permanent one, so far as the recent aggravation of his symptoms was concerned. Apart altogether from the question of the occasional origin of asthma in disease of the nose, this case shows that exacerbations of dyspnœa may originate in this organ, and that relief can be procured by treatment of the local condition.

Dr. DUNDAS GRANT, after welcoming Dr. Woakes back among them, observed that these were, beyond all question, cases in which it

was possible to say that the relief was not due to counter-irritation applied to a very sensitive area. It was very difficult to produce exactly parallel cases. He referred to a very curious case of asthmatic attacks in which a man, a wholesale cheesemonger, found that he became absolutely incapable of following his avocation in consequence of dyspnoea, which invariably came on after he had been visiting the cellars in which the cheeses were ripening. The application of a cocaine solution to his turbinated bodies, which were much swollen, gave an extraordinary amount of relief, and this tided him over from September until the following Christmas. The following year, on his coming back again at the commencement of the Stilton season, he diagnosed the presence of a spur and decided to remove it. Before the slight wound thus inflicted had completely healed, he, the patient, was back again among his cheeses, and the irritation returned more severely than ever. Moreover, the application of cocaine no longer afforded the same relief. Another year passed, another ripening season came round, and at Christmas the patient came to see him, saying that he was no longer the same man. It turned out that he had on his own account reverted to the constant use of the menthol and eucalyptus spray, which he had been ordered in the first instance. This patient was one of the most pitiable cases of asthma he had ever seen. It was certainly curious that, in the author's cases, treatment directed to the one should have so promptly determined the subsidence of the symptoms.

Mr. LENNOX BROWNE said that the author's cases were excellent instances of the relief to be afforded by attacking the source of direct irritation, and were not, therefore, open to the general criticism of the uninitiated that the majority of cases of reflex neuroses resulted from the counter-irritation effected by intra-nasal measures, and it was important in this sense to record all cases of cure of reflex neuroses by removal of any actual intra-nasal cause. He preferred to believe that in the case related by Dr. Grant the patient's sufferings were alleviated by the use of cocaine and menthol, but were cured by the removal of the spur.

Mr. LENNOX BROWNE also related the case of a medical man who came to him from Nottingham. He was sixty-five years of age, and complained of asthma ever since he had been garrotted outside the Midland Hotel. He had been treated by two medical men. As a matter of course he examined the larynx to see if there were any marks of injury or fracture, but nothing of the kind was found. The patient was about to leave the room when it occurred to him to examine the nose as a mere matter of routine. Though the patient denied having any nasal trouble, he found the nose blocked with polypi, and the patient then admitted having suffered from asthma for many years previously to the date he had given. On removal of the polypi his condition was materially improved.

Dr. SANDFORD.—CASE I. *Case of Papilloma. Pathological Specimen from Inferior Turbinal.*

A discussion which took place at our last meeting with regard to the possible conversion of benign growths into malignant ones, when exposed to rough manipulative treatment or other cause of irritation, suggested

to me that the following pathological specimen may not be altogether devoid of interest.

The case was one of a woman, forty-one years of age, who consulted me with regard to complete obstruction of both nasal passages, and frequent haemorrhage of an alarming character from the right nostril. The former condition had existed for three or four years, and of late she had noticed a growth protruding from the right nostril. On the right side I found a large papillomatous mass in connection with the inferior turbinate bone, and completely blocking the passage. On the left side was considerable hypertrophy of the mucous membrane covering the inferior turbinal, the surface of which was, however, quite smooth, thus differing from the villous appearance presented on the right side above. The left nostril was plugged by mucous polypi, growing from the middle turbinal. By the removal of these the patency of the nostril was restored. On the right side I encircled the growth with a cold snare, and a violent jerk by the patient enabled me to remove the growth more rapidly and completely than I had anticipated, bringing with it the greater portion of the inferior turbinal. This is shown in the specimen before you, which has shrunk to half its original size, and a section of which may be seen under the microscope.

In this section is seen an enormous increase in the cellular and vascular elements of the structure. The small cells are very numerous in parts, and appear to me to exhibit here and there the appearance of extreme activity, streaming apparently from certain foci towards the free surface. I therefore would suggest that this specimen exhibits a condition of *potential* though *latent* malignancy, although at present there is no evidence of the latter.

It is easy to imagine an increase of this cellular element and cellular activity under the influence of unwonted irritation, until the increased proportion of active cellular elements might constitute a condition beyond the shadowy line which separates so-called benign from malignant growths. I bring forward this specimen, subject to the opinion of skilled pathologists—of whom I am not—in the hope that they may find something worthy of their criticism in the case.

The practical lesson which I derive from my theory is that it supplies a further argument in favour of neat-surgery and gentle manipulation in the removal of nasal growths. I have no doubt that groping about with a forceps for an unseen object has frequently been a source of serious subsequent trouble.

Mr. WINGRAVE said the case was one of particular interest to him, because it bore upon a question which he proposed to deal with later on. It was simply an enlargement of the posterior part of the turbinate body, the enlargement bearing principally upon the vascular tissue. The elevations, like papillæ, were venous sinuses covered over with epithelium, and forming crypts. He had under his observation a case almost similar. He was not surprised to find there was a large amount of bleeding, because the growth consisted of venous sinuses having undergone enormous dilatation, and their walls sharing the mucoid degeneration, they had thus no power of recoil. Such growths ought

properly to be called angiomata, or varices, for their structure was that of a true varix.

Dr. WOAKES remembered a similar case also affecting the ala of the right nostril and extending round to the septum, as well as the anterior border of the inferior turbinated body. Altogether the growth caused almost complete stenosis of the nostril. He employed the galvano-cautery cautiously so as not to produce adhesions, and after a few applications the disease disappeared. He had hoped that this was the end of it, but in the course of six months the patient returned in almost the same condition as before. He proposed a repetition of the treatment, since which the patient had not returned.

Dr. WOAKES did not think that description would apply to his case.

Mr. WINGRAVE said the condition he had described was almost entirely confined to the posterior part of the turbinal body.

Dr. WOAKES said that in his case it was confined to the anterior fifth of the turbinated bone and the inner part of the alæ.

CASE II. *Case of Fracture of the Thyroid Cartilage by direct violence.*

This injury is of such rare occurrence, owing to the extreme mobility of the parts and the absence of any point of resistance except the spinal column, that I am anxious to place the following case on record.

J. C., a farmer, fifty-three years of age, consulted me for some nasal trouble. I was immediately struck by his very peculiar voice, which was a loud, toneless whisper, and the sound of which gave me a disagreeable sensation in my larynx. Upon inquiry the patient stated that his voice had been so—"a little hoarse," he described it—since he was about sixteen years of age, when he had received a blow from the point of a cow's horn, which knocked him down. He had lost his voice immediately, and had suffered a good deal of pain in his throat for a considerable time, but eventually recovered partially, and had remained in his present condition ever since.

Upon examination with the laryngoscope the following conditions were observed : A large, irregular ridge, its long axis antero-posteriorly projected into the larynx from the left side, reaching nearly to the median line ; along its crest was stretched an attenuated fibrous band, evidently representing an atrophied vocal cord. On phonation the right cord advanced to the left of the median line, reaching almost to the crest of the opposing ridge, which thus acted as an immovable vocal cord, and the result was a very extraordinary sound indeed. There was a slight movement of the mucous membrane indicating the position of the left arytenoid, and the right cord and surrounding structures appeared to be considerably hypertrophied. Externally, a deep depression in the left wing of the thyroid cartilage corresponded with the internal protrusion, and marked the part struck by the point of the cow's horn.

Dr. DUNDAS GRANT and Mr. WYATT WINGRAVE.—*Case of Pharyngo-Mycosis.*

The patient came recently to Dr. Grant's clinique complaining of comparatively slight sore throat of some three months' duration. On

inspection the tonsils and base of the tongue were seen to be beset with white dots corresponding to the lacunæ normally found in these regions. These dots were rounded, and somewhat acuminate, and though they looked as if they could be easily brushed away, or pulled, were found to have the adherent and tenacious nature characteristic of pharyngomycosis. There was no surrounding inflammatory areola. Judging by cases in which the presence of the disease was only incidentally discovered on examination of the throat for other (or no particular) reasons, we believe that the disease exists for a long time without causing symptoms, and in the present case it most probably dated from a period long anterior to its discovery by the patient. The treatment now universally approved is the introduction of the galvano-caustic wire into each point. When an enlarged tonsil is the seat of the trouble the removal of that structure is advisable. Mr. Wingrave carried out this plan of treatment in the present instance, and a complete cure is anticipated.

Microscopic preparations were shown.

Mr. LENNOX BROWNE suggested that an examination should be made of all cases of lacunar tonsillitis in respect of the leptothrix. This would very possibly show its existence to be even more common than was supposed.

Mr. WINGRAVE said he had done this for many years past. Pharyngomycosis was essentially a disease in which the leptothrix stuck in clusters tenaciously to the epithelium, persistently growing after removal. It is worthy of remark that it prefers apparently healthy surfaces.

Dr. WILLIAM ROBERTSON (Newcastle).—*Account of a Case of Naso-Pharyngeal Growth.*

These specimens I removed from an old lady, aged sixty-five, who was sent to me by Dr. Elliott, of Bellingham, with a history of eight months' respiratory inconvenience in her nose and throat, which was not severe and only troubled her when lying down.

On examination the left nostril was seen to be completely occluded and distended, giving a frog-face appearance to that side. The tumour was movable, and had a pearly look. On depressing the tongue a tumour was seen behind the uvula, filling the space between it and the oro-pharynx, having a haemorrhagic appearance, but there was no history of bleeding. It measured antero-posteriorly about one inch, and appeared to the finger to be about one and a half inches long, and fixed by a broad base to the basis cranii.

Operation..—After applying cocaine, a thick ligature was passed through the visible part of the tumour, which on pulling exposed the mass almost to its origin. A galvano-caustic loop was then run round the growth, and carried up flush with the bone, which soon completely separated it from its attachment without any obvious bleeding. The nasal mass was then forcibly torn from its attachments by a cold wire snare, the whole operation not taking five minutes.

There was some slight bleeding from the nose, but the patient stated that she felt none the worse for the operation.

A week later the nose and naso-pharynx were found to be quite free

from growth ; the left ala had resumed its normal appearance, and respiration was perfect. The mirror showed a rough grey surface in the post-nasal space.

The macroscopical appearances indicate a myxo-sarcoma, so that the prospect of ultimate recovery is questionable. As it is, the result is a happier one than might have been anticipated from any of the capital operations suggested in text-books by the (all-sufficient) general surgeon. The slight disturbances of parts, and the minor calls upon the patient's powers of endurance, afford greater promise of resistance to any ultimate changes.

It is worthy of notice in this case that at no time was there any haemorrhage, and the use of the ligature contributed greatly towards the ease with which the mass was removed from the pharynx.

Mr. WYATT WINGRAVE.—*Report of Naso-Pharyngeal Growth removed by Dr. WM. ROBERTSON.*

Macroscopically the growth had the appearance of Gruyère cheese on section, since it was riddled with large and small cysts, filled with sticky material. Microscopically it consisted of embryonic cell structure, for the most part undergoing mucoid changes, whilst the cyst-like features were evidently due to similar changes occurring in the tracts formed by large fusion cells, characteristic of cylindrical sarcoma, of which it is a typical example.

Mr. WINGRAVE.—*Preliminary Notes of an Investigation concerning the Morbid Anatomy of Hypertrophic and Atrophic Turbinal Disease.*

The varied and apparently contradictory accounts of the morbid anatomy of Hypertrophic and Atrophic Rhinitis given by different authorities upon nasal diseases, have induced me to investigate the histological details attending persistent hypertrophy and atrophy of the turbinal bodies themselves. Through the courtesy of my colleagues I have collected an abundant supply of material, and am now able to give you the results of this research.

Your attention will at first be directed to the *Hypertrophic variety*.

Whilst, on the whole, confirming the generally accepted details, I was particularly struck with one feature, which has hitherto been entirely overlooked, and which, I venture to suggest, affords a more scientific and, perhaps, satisfactory explanation than has yet been advanced, respecting one form of this disease, which I propose to call *turbinal varix*.

The histological features vary in degree and variety ; in some cases the mucoid changes are in excess, whilst in others the lymphoid, the glandular, or the vascular prevail ; hence a classification, although to a certain extent arbitrary, is at once suggested, viz. :—

1. Vascular or cavernous.
2. Mucoid.
3. Lymphoid.
4. Glandular.

These are placed in order of occurrence, for the cavernous variety is by far the commonest, and the glandular the least. Each may be

associated with more or less catarrh. The mucoid and lymphoid varieties were mostly found in the middle turbinal, whilst the cavernous, although occurring occasionally in that situation, were mainly associated with the inferior body. Sometimes the increase of the lymphoid tissue is so rapid and free as to constitute a lymphomatous growth, and has repeatedly been diagnosed as sarcoma, from the alarming features which it presents, an interpretation often justified by the results, for sarcomata associated with the middle turbinal are by no means rare.

I shall, however, chiefly draw your attention to the lower turbinal. Its normal anatomy is so well known that I will only accentuate one point of interest, which a glance at the specimens will make quite clear to you. The anterior end of an adult turbinal is generally quite smooth, to which the posterior half presents a striking contrast, being swollen, rough, and wrinkled, even after soaking in spirit. This condition is markedly exaggerated in hypertrophic states, and appears as a large, mulberry-like mass by posterior rhinoscopy. In the young subject, however, the contrast is less marked, or even entirely absent.

Serial sectioning illustrates the difference even in a more striking manner, for whilst the anterior half is the seat of mucoid and glandular hyperplasia, the posterior half is almost entirely occupied by cavernous changes. These venous channels or spaces, the "Schwellkörper" of Zuckerkandl, are normally bounded by thick layers of visceral or plain muscle fibres, separated from each other by lymphoid or reticular tissue, and are supplied by small twisting arteries. Hence they vary considerably in their calibre under different varieties of stimuli, direct or reflex, and constitute "erectile organs." Now this function is emphatically denied by Bosworth, who says that their nature is not erectile, and that they are never erectile in health or disease.

This is a view which is certainly not confirmed by the histology, and by the remarkable sympathy which these bodies show with sexual and developmental phenomena.

A greater or less persistence and exaggeration of this function has been advanced as a probable cause of hypertrophy, for increased vascular supply leads to increased growth. Whilst admitting that this view may satisfactorily dispose of a few cases, it certainly does not account for by far the majority.

In twenty cases of cavernous hypertrophy—*turbinal varix*—I found the following conditions eighteen times:—The muscular walls of the venous canals were in an advanced condition of mucoid atrophy. In places the muscular fibres were replaced by mere fibrous tissue, whilst in others the general mucoid changes had involved the entire thickness of the walls, and seemed to invade the interior, without any previous fibrosis, so leading to either a complete destruction of the sinus or an extensive distension.

These changes were continued into the bone spaces, causing well-marked distension, which was doubtless facilitated by the action of osteoclasts, since these bodies were discovered in many instances evidently actively engaged in bone absorption, and consequent cancellation, especially in the middle turbinal.

In the mucoid degeneration of the muscular walls of the vascular

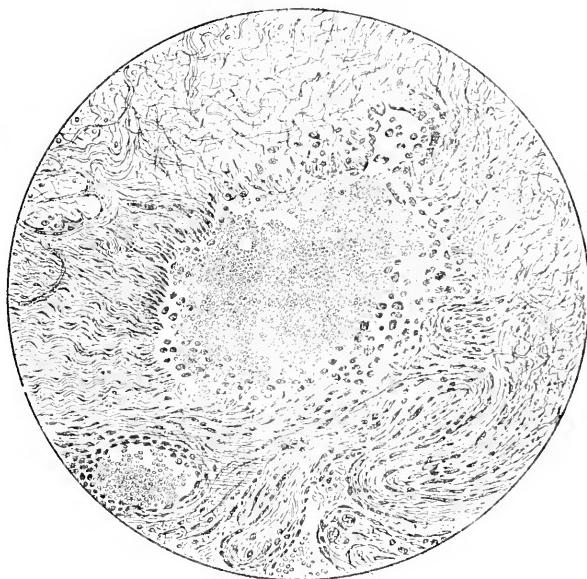


FIG. 1.

Mucoid degeneration of the walls of a venous sinus from the inferior turbinal body, obj. $\frac{1}{2}$ oc.c.



FIG. 2.

Bone distension, or cancellation of inferior turbinal body, obj. $\frac{1}{2}$ oc.c.

spaces I venture to suggest that we have an interpretation of the morbid anatomy of this disease, for the walls having gradually lost their power of recoil they become by degrees more and more distended, eventually leading to a permanent morbid enlargement of the organ—in fact, a varix.

It may be urged that the degenerative process is secondary to pressure distension. This, however, could not be the case with muscular fibres, since it is not in accord with the laws of hypertrophy, and we simply have in the turbinal body a condition which is common enough elsewhere, as in piles and varicosed veins generally, plus mucoid degeneration.

An advanced degree of this condition may usually be diagnosed by the fact that the body responds but slightly to the contracting influence of cocaine—a consideration of no small importance in treatment, for it is this form which is invariably associated with so much bleeding, after removal either by snare or cutting ring.

When very marked they have been removed and reported as angioma or papillomata, of which we have an illustration in Dr. Sandford's case to-day.

Atrophic Rhinitis.—The microscopic features generally associated with this disease may be briefly described as follows:—

1. Stratification of surface epithelium with desquamation.
2. Diminution of adenoid tissue.
3. Destruction of acinous glands.
4. Disappearance of venous sinuses.

Bosworth makes the strange remark in his summary that the disease is not due to a connective tissue hypertrophy, but to a transformation of epithelial structures into inflammatory corpuscles.

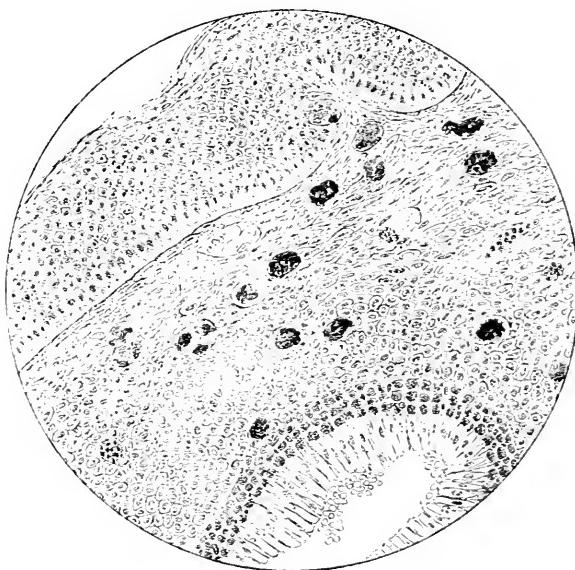
In addition to the above four general features, which were present in varying degrees, I have found others which are to me of considerable interest, and in whose interpretation I venture to suggest we may possibly find a solution of the pathological obscurity surrounding this disease.

Prominent in all sections was transformation of the surface epithelium of the whole nasal chamber: in some few instances the ciliated and olfactory cells were merely wanting, but in most cases they were replaced by stratified epithelium, accurately corresponding with the Malpighian layer of the epiderm, of eight or ten rows, with beautifully marked "prickle" cells. Transformations of a similar kind, it may be remarked, are found in many situations, which are associated with changes of condition or function, e.g., inverted uterus, perforation of tympanic membrane, developmental changes in the pharynx, etc. Below this epithelium the hyaline border or basement membrane is seen to have lost its regularity, and in many places to have disappeared entirely, being replaced by connective tissue and "wander cells."

The subjacent lymphoid or reticular layer is markedly devoid of blood-vessels, but distributed irregularly in this region are seen (often in clusters) rounded hyaline bodies, which specially select the orange stain.

They vary considerably in size ; some are as large as $\frac{1}{100}$ th inch, whilst others are about $\frac{1}{200}$ th inch. Many are apparently homogeneous, and enclosed in a bright capsule, which is often only seen with difficulty, whilst others have a granular appearance due to a breaking up. They are to be seen both free and enclosed in epithelial and connective tissue cells, which they distend.

They are seen in the transformed surface epithelium, in the glands, in the columnar epithelial inclusions, commonly called cysts, and wandering into the deeper tissues, where large pigmented masses occur, which



obj: $\frac{1}{6}$, occ: 2.

FIG. 3.

Atrophic Rhinitis—Middle Turbinal, showing Hyaline Bodies.

may probably be masses of spores containing pigment derived either from the blood or from the olfactory cells. This property of pigment absorption has been previously pointed out by Mr. Jackson Clarke in connection with melanotic cancers, and is one of great interest.

Wherever present, these bodies seem to be causing activity in the adjacent cells.

At first I thought that they might be the products of some degeneration, or perhaps thrombi, but further examination, with higher powers, threw a totally different light upon them. The large clear masses were seen to be encapsulated in epithelial and other cells exactly in the manner of a protozoa in the plasmodium stage, whilst the small clusters represented what may be considered spores, free, and still enclosed. This interpretation has been confirmed by a well-known authority upon the matter.

As you will see by the specimens, there is no difficulty whatever in

demonstrating these bodies, provided the proper method is employed : they stand out in clear and vivid contrast with the surrounding structures, but the question is, what are they ? That they are not due to endogenous cell formation I feel sure, and that they are parasitic is to me the most feasible theory. They are attended with plentiful indications of a slow inflammatory process, and giant or fusion cells are not uncommon.

No structure affords a better breeding ground for parasites than the nostrils : it is, therefore, not surprising to find some form of protozoa in the turbinals. Still, as I have failed to satisfy myself of their presence in other forms of nasal disease, excepting cancer, I venture to advance the view that atrophic rhinitis is essentially an inflammatory disease of extremely slow progress associated with a particular form of parasite, but whether the psorosperm is merely incidental, or whether it constitutes a potential cause, I feel it would at the present stage of investigation be unwise to affirm.

Briefly, the following are the most prominent details which I have noticed :—

1. Transformation of the surface epithelium into stratified and prickle cells.
2. Disappearance of hyaloid membrane.
3. Presence of large and small hyaloid bodies, free and encapsuled.
4. Masses of pigment.
5. Degeneration and proliferation of gland cells.
6. Giant cell formation.
7. Fibrosis of lymphoid tissue.
8. Atrophic changes in nerves and blood-vessels.

Since the discovery of the bacillus of tubercle no subject has created more interest in pathological circles than that of the parasitic origin of certain growths, and no one who has followed the discussions or seen the elaborate preparations at the Pathological Society can fail to be impressed with the magnitude and importance of the subject. Although by no means a novelty, it has gradually developed with no uncertain signs of vigour, and, notwithstanding the scepticism shown by some, it indicates the existence of a more liberal and philosophical interpretation of histological evidence.

Whatever these bodies may eventually prove to be—whether merely examples of endogenous cell multiplication, or a new method of cell division, or true parasites, or the results of bisexual metamorphosis—I am pleased to be able to demonstrate their presence in a disease of peculiar interest to us as specialists, as affording evidence which may prove of value in further investigations.

Mr. LENNOX BROWNE asked whether he had found these bodies in more than one specimen ; also whether he considered that hypertrophic rhinitis was distinct from atrophic rhinitis, that is to say whether the latter was ever a further stage of the former, or was a different disease ?

Dr. GRANT pointed out that there were many forms of atrophic rhinitis. There were some cases in which the symptoms were much

more intense, and others in which they yielded readily enough to treatment. The variety in the forms, and the difference in the facility with which they yielded to treatment, explained the difference in the views held by men in respect of the prognosis in such cases. Some were hopeful, not to say sanguine, while others were despondent. There was probably more than one mode of origin. He thought that Bosworth was right in saying that many cases arose from suppurative rhinitis of some form in children. He referred to a case of two sisters, both the subject of atrophic rhinitis with offensive smell. They both had purulent vulvitis at the same time, and it was very probable that the nasal condition was due to direct contagion. That was a case in which atrophy would ultimately follow. Then, again, there were cases of atrophic rhinitis after small-pox.

Dr. WOAKES asked whether the author in speaking of atrophic rhinitis included all cases of ozæna.

Mr. WINGRAVE said he was referring only to those cases in which the turbinated bodies and other structures underwent a diminution in bulk with corresponding increase in the size of the nasal cavities and the formation of crusts and extension to the pharynx. *i.e.*, progressive.

Mr. LENNOX BROWNE agreed that atrophic rhinitis was associated with a very characteristic odour, quite distinct from that of ulcerated bone or antral empyema. He could not admit that one did not meet with atrophic rhinitis before puberty. The fact was that it almost always was found in young patients, whose parents were generally advised that the trouble would disappear on the establishment of menstruation, but, as they all knew, the reverse was the case. He asked the author whether he had ever seen atrophy in one nostril and hypertrophy in the other.

Mr. WINGRAVE, in reply to Mr. Lennox Browne, said he had seen the two conditions existing at the same time in either nostril. There was a form of atrophy which was generally preceded by hypertrophy. The atrophic rhinitis of childhood was clinically and pathologically different from the one he illustrated. He had found these bodies in nearly every specimen of true atrophic rhinitis, but, unlike the hypertrophic variety, specimens of typical cases of this kind were difficult to obtain. He did not think that there was the slightest relationship between the two affections specially described—any more, in fact than between typhoid fever and small-pox—though there were undoubtedly cases in which there was an apparent transition from hypertrophy into atrophy. His impression was that this particular form of atrophy was much more rare before puberty than afterwards.

Dr. WOAKES pointed out that ozæna had a very distinct smell, quite different from any smell due to other conditions of the nostril. This smell he believed was usually associated with atrophy. He could not admit that atrophic rhinitis was a rare disease at any period of life.

Mr. WINGRAVE, in reply, said he was referring to a progressive con-

dition, not confined to the nostril but extending into the post-na-sal space, with the formation of crusts and a characteristic smell. That was the form which, in his opinion, was not often met with before puberty.

Dr. MACINTYRE suggested that the subject might very well form one for discussion at the next meeting. It might be well, however, to settle beforehand what was meant by each speaker in using the various terms. For example, atrophic rhinitis might be misunderstood. If twenty patients were brought into the room, probably there would be no difference in giving a name to the disease from which each was suffering, and yet in speaking of atrophic rhinitis in the abstract some different conditions might be meant. The term "inflammation," for example, was very loosely applied, and evidently included a great many different conditions which were grouped together in the present state of our knowledge, but which would ultimately be separated by histological research.

DIPHTHERIA, &c.

Sendziak (Warsaw).—*Contribution to the Question of the so-called Croup of the Nose.* “Nowiny Lekarskie,” 1892, No. 10.

THIS paper was fully published in this Journal in 1892. *John Sendziak.*

Godart and Kirchner.—*Diphtheria in Belgium.*

Gallez.—*Diphtheria in Belgium: its Causes and Prophylaxis.*

Bairy.—*The Causes of the Development of Diphtheritic Angina in Belgium, and the measures necessary to combat it.*

THESE three memoirs have received prizes from the Academy of Medicine of Belgium. They are too long for abstraction, and, moreover, present nothing new. *Hicquet.*

Sweeting, R. W. R. (London).—*Post-Scarlatinal Diphtheria: A Statistical Analysis.* “Brit. Med. Journ.” Mar. 11, 1893.

THE cases occurring in the Metropolitan Asylums Board fever hospitals were true diphtheria occurring in convalescents from scarlet fever about the fourth week. Outside infection: concurrent incubation or personal infection from case to case in the wards were non-operative. Defects of drainage failed to explain it. It was supposed the aggregation induced a change in the poisons of scarlet fever and diphtheria in the direction of increased potency. Dr. Thorne Thorne believed it to be wholly a question of maladministration. *Wm. Robertson.*

Tooth, H. H. (London).—*Diphtheritic Paralysis with Temporary Absolute Deafness.* “Brit. Med. Journ.” Mar. 11, 1893.

THE diphtheria occurred in a boy aged five years, manifesting itself on the tonsil and in the nose. The urine was albuminous. A month after the

beginning of the attack he became suddenly deaf and giddy, with the palate paralysed, and the knee jerks absent. In three weeks' time the palate recovered itself, and the patient began to hear loud shouts. Four days later a watch could be heard an inch off in his right ear, but not in the left. Perosseous deafness was absolute, and he found walking impossible with eyes shut. Three weeks later hearing in right ear normal, and the watch at six inches in the left, and in yet another three days tympanic and perosseous hearing were normal. Knee jerks were absent, and he tended to fall on walking down a line. The author remarks that the diphtheritic process so marked in the nasal passages favoured the view of Eustachian obstruction having supervened, although it would not account for the total deafness noticed, which, be it observed, occurred after all diphtheritic inflammation had vanished. The conclusion was that the auditory nerve or centre had been implicated in the same way as in ordinary diphtheritic paralysis. The rapid recovery favours this view. This occurrence must be rare as a sequel of diphtheria, as, according to Gowers, hearing is never impaired. This case is an instance of a sensory nerve being affected by diphtheritic changes if the seat of the lesion was in the auditory nerve. Dr. Tooth considers it easier to suppose an affection of the centre. The non-return of the patellar reflex is notable, the author observing that he has seen cases where it did not return for months, and even years.

Wm. Robertson.

Aitken.—*Diagnosis and Treatment of Diphtheria.* “The American Practitioner and News,” Oct. 8, 1892.

THE author relies on the following points in the differential diagnosis between diphtheria and follicular tonsillitis :—

DIPHTHERIA.

Invasion gradual, often insidious.

Temperature.

Rises gradually, may be high throughout. Course of fever irregular.

Often little disturbance till third day, marked asthenia.

Pulse.

When rapid becomes feeble, may be slow and irregular.

Glandular swelling almost invariably present.

Reaches height in four or five days.

Nasal regurgitation and bloody discharge often present.

Albuminuria is present with low temperature.

FOLLICULAR TONSILLITIS.

Invasion abrupt.

Temperature.

For first twenty-four hours 102° - 105° F. ; lasts three days.

Most general disturbance first day, no tendency to asthenia.

Pulse.

Rapid and full.

Glandular swelling usually absent.

Reaches height in twenty-four to thirty-six hours.

No nasal regurgitation or bloody discharge.

Slight albuminuria only if temperature is high.

DIPHTHERIA.

Highly contagious.
Paralysis common, even after milder cases.
Prevails epidemically.

Exudation.

Fiery blush over whole throat.
Isolated spots, coalesce, grey early, greenish later.
On tonsils, uvula, and pharynx.
Mucous membrane bleeds readily on removal of diphtheritic membrane.
Infiltrates tissue and cannot be wiped off.
Reforms if forcibly removed.
May not appear for forty-eight hours.
Spreads.
Frequently unilateral for two days.
Clears off slowly, lasting from five to twenty days.

"Liquor ferri subsulphatis," of full strength, swabbed on the throat frequently, is highly praised.

FOLLICULAR TONSILLITIS.

Contagion doubtful.
No paralytic sequelæ.
Cases may have a common origin, e.g., sewer gas.

Exudation.

Blush usually on tonsils only.
Isolated yellow spots or continuous membrane.
On tonsils only.
Mucous membrane does not bleed on removal of the grey spots.
Superficial, often can be wiped off, not adherent.
Does not reform after removal.
Appears early.
Does not spread.
Always bilateral.
Clears off quickly.

B. J. Baron.

NOSE, NASO-PHARYNX, &c.

Wilkin, G. C.—*An improved Ecraseur Nasal Snare.* “Brit. Med. Journ.,” Mar. 11, 1893.

THIS is a combination instrument: it can be used as an ordinary snare, or the écraseur mechanism can be made to act when required. The finger-rests placed on the under surface do not interfere with vision, and give steadiness to the instrument. It is made by Messrs. Mayer and Meltzer, Great Portland Street.

Wm. Robertson.

Johnstone, R. Mackenzie (Edinburgh).—*Transillumination of the Antrum.* “Brit. Med. Journ.,” Feb. 18, 1893.

A DEMONSTRATION to show the efficacy of the test as a diagnostic measure. The light shone through the right antrum, while the left was in umbra. Pus was suspected in the left antrum. *Wm. Robertson.*

Anton (Prag).—*Results of Internal Massage of the Nasal Mucous Membrane in Chronic Diseases of the Nose.* “Prager Med. Woch.” 1892, No. 49.

THE author obtained satisfactory results in simple chronic nasal catarrhs, but the treatment was not so satisfactory in cases of ozæna and hypertrophic catarrh. *Michael.*

McClure.—*The Etiology of Atrophic Rhinitis.* “The American Practitioner and News,” Sept. 24, 1892.

THE following are the conclusions at which the author arrives:—

1. Atrophic rhinitis is the ultimate and logical result of neglected hypertrophy of the nasal mucous membrane, and never occurs as a primary disease.
2. Its chief cause is from lack of nutrition, caused by cutting off its blood supply.
3. The atrophic process is by desquamative inflammation.
4. The chief point to regard is the apparently paradoxical statement that at the beginning of atrophy the nasal mucus is due to anaemia, superinduced by hyperæmia of the membrane.

The sequence of the various pathological processes is as follows:—

1. Dilatation of arteries and veins with diapedesis of leucocytes, with hypernutrition. This is of short duration; the tonicity of the dilated blood-vessels is weakened and then lost, and the blood within this hypertrophied tissue becomes stagnant. Tortuosity of blood-vessels still further hinders healthy circulation, and after a varying time atrophy begins to replace hypertrophy.
2. Desquamation of superficial epithelial cells takes place, beginning on the mucous membrane covering the turbinated bones first, as the direct result of interference with blood supply.
3. When the desquamation reaches the mucosa, crusts form and foetor is noticeable; when the mucous glands are involved, the crusting is very marked from withdrawal of fluid supply.
4. Lastly, the periosteum covering the inferior turbinated bones is attacked and atrophy of these structures ensues. *B. J. Baron.*

Bresgen (Frankfort-a-M.)—*Headache in Diseases of the Nose and Pharynx.* “Münchener Med. Woch.” 1893, No. 5.

HEADACHE is often observed and caused by disease of the nose and pharynx. It is caused by swelling of the mucous membrane of the nose, as in acute coryza. Narrowness of the nose predisposes to this complication. In cases of suppuration, headache arises if the pus has no free discharge. The headache in cases of hypertrophied and inflamed tonsils is also caused by the swelling of the nasal mucous membrane—always complicating this disease. Psychical irritations also often cause swelling of the nasal mucous membranes and consecutive headache. In all cases of headache, therefore, the naso-pharynx should be examined, and its disorders treated. *Michael.*

Fearnley, W. (London).—*A Rhinolith discovered by Accident.* “Brit. Med. Journ.” Feb. 25, 1893.

IN this case the patient suffered from a thick, offensive discharge from

the right nostril for some months, and a mucous polypus could be seen at the outlet. Under chloroform the operator felt with his finger a hard body, and from a fragment dislodged it was discovered to be a rhinolith with a central aperture probably situated around the opening of the posterior nares.

Wm. Robertson.

Jeffery.—*A Plea for a more conservative Treatment of Nasal Affections.*
"Brooklyn Med. Journ.," Nov., 1892.

AFTER naming a host of remedies, medical and surgical, that have had or are having their day in the treatment of nasal affections, and many of which the author thinks have been used too frequently, he proceeds to state his views as to the treatment of nose troubles.

He expresses a belief that a large number of symptoms of disorder in the upper air tract are due to constitutional disorder, and especially is the kidney to be carefully examined in this connection.

The local treatment should be of a stimulating character—*i.e.*, healthy arterial supply should be increased, nerve activity stirred up, and an equilibrium in the secretive powers of the racemose glands and the epithelial cells established. Neither the cautery, nor galvanism, nor Gottstein's tampons, nor sprays of stimulating solutions, satisfies the writer.

Systematic home-treatment is what is wanted. Cleanliness is an essential, and the hand atomizer or soda and vaseline in the case of children, where there are aural troubles, will accomplish this. Next, the nasal muscles should be systematically drilled by passive motion until able to sustain themselves. He praises the apparatus of Dr. William A. Dayton, which keeps open the vestibule of the nose, and permits atmospheric pressure to exert its influence on the intrinsic structures.

Phthisis he considers is the cause of catarrh, and not the result of it. Weak solutions of cocaine ought not to be used for long periods, from the temporarily paralysing effect of the drug being deleterious.

Dr. RICE agreed with a good deal that was said by Dr. Jeffery, and especially condemned spraying the nostrils with other than very mild solutions; copper and zinc solutions being quite unsuitable. He does not, however, think that there is more nasal surgical work done to-day than five or six years ago.

Dr. FRENCH believed that there is a great deal too much nasal surgery done. His criterion as to whether a patient has nasal passages that are patent enough is to tie up the chin every night for a week or ten days, and if this can be done and cause no disturbances, then there is no need for surgical interference. He relies largely on cleanliness, application of weak, oily solutions, careful attention to personal hygiene, digestion, etc., and keeping the mouth as far as possible closed.

Dr. DOUGLAS believes that forty-nine fiftieths of all pharyngeal and laryngeal troubles are traceable to obstructions in the nose. For the treatment of these troubles surgical methods are imperatively necessary, but nothing except what is really obstructive ought to be removed.

B. J. Baron.

Heryng (Warsaw). — *Tuberculosis of the Mucous Membrane of the Nose.*
“Medycyna,” 1892, Nos. 33, 38, 42, and 44.

BASED upon ten cases observed by himself, the author reviews the etiology, symptomatology, and therapy of this rare disease (of which were hitherto known ninety cases). As to the etiology the author draws attention to the transportation of the tubercular contagium upon the mucous membrane of the nose, by means of fingers and pocket handkerchiefs. By differential diagnosis he points to the importance of a microscopic and especially bacteriological examination of secretion of the ulcers. In one-half of the author's cases tubercular bacilli were found. In general, three affections especially should be taken notice of: syphilis, lupus, and chronic eczema in scrofulous children. The course of the disease is long. Prognosis is doubtful. In cases of secondary tubercular ulcerations a sharp spoon and lactic acid applications proved most successful.

John Sendziak.

Chabory, F. (Mont Dore). — *The Influence of Nasal Affections upon the Respiratory Apparatus.* Paris, 1892.

In this brochure Dr. Chabory discusses asthma, hay asthma, cough, sneezing, stridulous laryngitis, glottic spasm, laryngitis and bronchitis, tracheal ozena, blennorrhœa, tuberculosis of the upper air passages, rhinoscleroma, pneumokonioses, malformation of the thorax, and emphysema in their relation to nasal affections, and is led to the following conclusions:—

Nasal affections react upon the respiratory apparatus by reflex action; very often we are only in the presence of manifestations of a diathesis, which evolves simultaneously and without any relation of cause and effect.

In other cases it is the extension of a pathological process of which the nasal mucosa is the point of departure, as e.g., in certain laryngitis and bronchitis, tracheal ozena, laryngeal and pulmonary tuberculosis, and scleroma.

The suppression of nasal respiration may pathogenically influence inflammation of the respiratory mucosa, and spasmodic respiratory phenomena.

Malformation of the thorax and pulmonary emphysema may follow from nasal affections.

Some original cases illustrate the author's thesis, which is a good *r  sum  * of the subject though containing nothing new.

R. Norris Wolfenden.

Owen, Edmund. — *Pest-Nasal Growths or Adenoids.* “The Practitioner,” March, 1893.

ADENOID tissue, which exists normally in the mucous membrane of the naso-pharynx, consists of a fine network of connective tissue fibrils, with fixed cells, wrapped around and partly concealing them, so that the tissue looks like a network of branching and anastomosing cells. The meshes of this network are occupied by pale blood and lymph corpuscles. As regards the causation of disease of this adenoid tissue nothing very definite can so far be stated: the balance of evidence, at present, is

against the tubercular nature of the lesion. The diagnosis of this condition is probably best made by means of the index finger passed into the naso-pharyngeal space. In a few cases posterior rhinoscopy may be of service. The symptoms complained of are a vacant or stupid expression, "dead voice," snoring, sleeping with the mouth open, deafness, headache, and constant tendency to catch cold. As regards treatment, nothing short of erosion will suffice. Cod-liver oil, iron, tonics, etc., may do a certain amount of good, but will never effect a cure. In preparing for the operation the child's head should be enveloped in a towel, arranged *à la Turque*; the arms and chest should be enshrouded in a bath towel, the floor should be covered with a dust sheet, or a few newspapers, and a toilet pail should be placed at the end of the table so as to receive the blood. The child should be placed upon his back, with the shoulders raised over a firm pillow, and with the head thrown well back, and hanging over the end of the table. Blood is in this way prevented from passing into the trachea, and runs out at the anterior nares. The patient should be under the influence of an anæsthetic. The author operates before the stage of complete narcosis is reached, for the reason that the "glimmer of consciousness which is thus left is sufficient to ensure against blood entering the trachea." [This appears somewhat unnecessary. If the head be sufficiently dependent it is a mechanical impossibility for blood to travel uphill into the trachea. The struggles of a patient imperfectly narcotized are most embarrassing to the operator, and the risk of injuring important surrounding parts is surely increased.—ABSTRACTOR.]

The author uses his index finger in many cases to scrape away the growths. Ring-knives, scrapers, forceps, delicate Volkmann's spoons, etc., may be used also. In the after-treatment iced lemonade is usually grateful to the patient. The patient should be kept indoors for a few days, especially if the weather be damp or cold. *W. Milligan.*

Owen, Edmund (London).—*Post-Nasal Growths in Children.* "Brit. Med. Journ.", Feb. 18, 1893.

THIS familiar topic formed the subject of a paper read at a meeting of the Harveian Society of London. In the discussion that followed, Messrs. Butlin, Lennox Browne, Mark Hovell, Scanes Spicer, Felix Semon, and Dr. Silk took part. Mr. Owen referred to the analogy both as regards structure and lesion existing between the pharyngeal tonsil and the other lymphoid elements of the naso-pharynx and the faecal tonsils. Any association of tubercle and adenoids was questioned [the constant association of adenoids and cervical adenitis was not noticed—ABSTRACTOR], though in feeble children enlarged pharynx tonsil is often present. The adenoidfacies was considered by the author a sufficient proof of the disease, while in children the use of the finger in the post-nasum generally confirmed its presence, rendering the use of the post-nasal mirror unnecessary. Mr. Owen urged the prompt removal of the growth as a preventive of recurrent attacks of deafness or even of permanent deafness. He operates invariably under chloroform, not pushing the anæsthetic too far, and having the child placed on its back with its head raised and

hanging over the end of the table. He finds that for children the finger usually suffices, only at times finding it necessary to use forceps or a sharp spoon. The after-treatment followed was keeping the child quiet and avoiding nasal douches.

The author referred to a fatal case in the practice of a friend, and urged a record of all such.

MR. BUTLIN operates under chloroform, as it allows of the patient being kept longer under, especially when Junker's inhaler is used. The patient he prefers lying on his side, with the head forward, and advises the palate to be kept in view during operation. Reference is made to one fatality in 750 operations—that of a delicate girl, aged fourteen, where a few growths were removed and two small faucial tonsils. Mr. Butlin looks upon recurrence as rare, only having met with one such after six or seven years' observation in his practice.

MR. LENNOX BROWNE considers that in 90 per cent. of enlarged faucial tonsils adenoids co-exist; hence it is his custom to search for and remove these contemporaneously with tonsillotomy, and refers to lesions left behind by atrophied pharynx tonsil, e.g. (Eustachian synechiæ ad.), deafness, etc., clearly preventible had these growths been operated on during childhood. Mr. Browne considers the facial aspect of the disease sufficient proof, and therefore rarely employs digital examination. He refers to other conditions associated with adenoids, e.g., laryngismus, barking cough of puberty, pertussis (?—ABSTRACTOR), granular pharyngitis, quasi-hypertrophic neuritis, catarrhal inflammation of the larynx and lower respiratory passages, and even laryngeal growths. It was remarked that mouth-breathers were more prone than others to be attacked by the exanthemata, while on the other hand these might occasion the growths in suitable soil. Recurrence was rare.

MR. T. MARK HOVELL showed a finger-guard made out of thick rubber tubing to protect the digit while examining for any lesion in the post-nasum. He always employs an anaesthetic, as otherwise parts of the growth may be left behind and keep up middle-ear catarrh. He prefers the patient on his back, with the head extended moderately, extreme extension interfering with the return of blood from the head, and thus increasing haemorrhage. Mr. Hovell prefers the forceps first to clear out the bulk of the growth, and the finger to remove smaller nodules. Recurrence was the exception.

DR. SPICER said recurrence only took place after imperfect removal, and that failure to get perfect nasal respiration subsequently depended upon some concomitant intra-nasal condition neglected or overlooked.

DR. SEMON considered that, while digital exploration was indispensable for small children, in older patients the post-nasal mirror replaced this. Reasons were given for operating before the spontaneous atrophy of the growths took place at puberty. Principal among these were:—(1) The influence of the obstruction upon general health, mental development, and upon the formation of the face—results which remained for ever, even if the glands themselves atrophied; (2) the ever-present danger of ear complications; (3) the greater liability to and seriousness

of infectious diseases of childhood, especially diphtheria and scarlet fever, as long as the growths were present.

The position preferred for operating was with the head hanging over the table slightly, slight chloroform narcosis, usually Gottstein's curette and only rarely forceps. Recurrence was most frequent after finger-nail procedures.

Dr. SILK used nitrous oxide and ether in a large number of cases, but believed these increased the haemorrhage. He now gives the A C E mixture up to abolishing the corneal but not the laryngeal reflex, *i.e.*, Snow's third but not the fourth stage.

Mr. OWEN, in reply, concurred with Mr. Lennox Browne as to the co-existence of enlarged faucial and pharynx tonsils. He gives the preference to chloroform not too lavishly administered, and agreed with Dr. Semon that it was inadvisable to let adenoids take their course.

[The above represents in miniature the views of several eminent English authorities on the diagnosis and treatment of a condition widely prevalent in all European countries. At least, on the Continent, perhaps, exception will be taken to the almost universal use of a general anaesthetic amongst English surgeons. In hospital practice where, perhaps, as many as five or six cases may be met with in a day, the question of using an anaesthetic in each becomes a serious one from various aspects. At several large cliniques on the Continent a general anaesthetic is dispensed with altogether, cocaine being considered sufficient for the requirements of the operation. Under the circumstances referred to and with the proviso mentioned, the rapid and effective use of Gottstein's curette (Hicguet's form) and a digital survey to remove stray nodules from the nares and the region of the tubes occupies a brief interval, and is unaccompanied by any anxiety as regards haemorrhage. These remarks apply more especially to young children, where the growths are neither so distributed nor difficult of removal. The previous use of cocaine prevents haemorrhage to a certain extent—an important point at this age. In older children and in young adults, where the growths have become more consistent and spread over a larger area, chloroform is indicated.]

Very little reference is made in the discussion to the presence of these growths at more advanced ages, although, of course, this is widely recognized.

The co-existence of hypertrophied lingual tonsil with both faucial and pharynx tonsillar hypertrophy, sometimes met with, is worthy of notice, inasmuch as this condition is often developed as early as the ages of ten or twelve years, and, attended by a distressing explosive cough, may mislead the operator who supposed that this was dependent upon the adenoids.

A too close dependence upon the adenoid facies as all the necessary proof of the presence of the growths is not to be relied upon. Large developments of these are often met with, where there are neither the facies nor deafness of a pronounced degree. A somewhat close association has been noticed between adenoids and cervical adenitis, not the least serious condition for which adenoids must be held largely, if not entirely, responsible.—ABSTRACTOR.]

Wm. Robertson.

PHARYNX.

Wróblewski (Warsaw).—*On the Application of Iod-Tincture in Diseases of the Throat and Nose.* “Gazeta Lekarska,” 1893, No. 10.

DURING two years the author successfully applied iod-tincture in certain diseases of the throat and nose, especially in atrophic catarrhs, as well as in ozæna. He supposes that the favourable action of this remedy is due to its highly antiseptic properties. He advises frictions with this drug. With nervous patients five per cent. solution of cocaine must be applied before. No injurious action could be remarked. He used also with good result iod-tincture in cases of haemorrhages, arising from swollen mucous membrane of the vault of the pharynx. Also in cases of angina leptothrix pharyngis. He is of opinion that this remedy can also be used with success in diphtheria; iod-tincture gave him also good results in obstinate cases of empyema of the antrum of Highmore.

John Sendziak.

Boulangier.—*Three Clinical Examples of Affections of the Lingual Tonsil.* “Presse Med. Belge,” Jan. 1, 1893.

1. Simple hypertrophy of the right side of the lingual tonsil. Obstinate and annoying cough. Superficial scarification of the hypertrophied portion, followed by cauterization with pure tincture of iodine, effected a cure in two sittings.

2. Lingual peritonsillitis supervened upon a phlegmonous peritonsillitis. Incision was followed by cure in two days.

3. Hyperplastic lingual tonsillitis of syphilitic nature. Cauterization with concentrated solution of nitrate of silver effected a rapid cure.

Higuet.

Wolberg (Warsaw).—*Clinical Contribution to the Etiology and Duration of the Incubative Period of Angina Follicularis in Children.* “Gazeta Lekarska,” 1892, No. 43.

BASED upon one case involving three children of the same family, in whom the above disease appeared at intervals after several days. The author concludes: (1) that angina follicularis is an undoubtedly contagious disease; (2) that duration of the incubative period lasts three to four days. For this reason he advises isolation of the healthy children from the sick.

John Sendziak.

Lecocq.—*Calculus of the Tonsil.* “Annales Medico-Chirurg. de Pat.,” Dec., 1892.

THREE original cases—

1. Calculus in the sub-tonsillar fossette, formed in the fibro-muscular wall of the pharynx, the volume of an almond, with rugose surface, and without any ulceration.

2. Calculus in the same region with abscess.

3. Calculus of the tonsil, abscess, and ulceration.

Treatment consisted of extraction, curettement, cauterization, and post-operative antisepsis. In the first case the patient had twelve years previously rejected a calculus, with subsequent recurrence.

Hicquet.

Heryng (Warsaw).—*Hypertrophy of the Tonsils; Conditions of their Appearance and Treatment by Operation.* “Gazeta Lekarska,” 1892, Nos. 41 to 43.

THE principal part of the paper deals with the operative treatment of this disease by means of the knife, tonsillotome, and galvano-cautery. The author describes particularly each of these methods, and gives for each suitable indications and practical hints. In describing the anatomical relations of the tonsils the author draws attention to the erroneous view as to the possibility of wounding the art. carotis int., which, as Linhart proved, is situated in the posterior part of the spatium pharyngomaxillare, and in this situation cannot be injured during extirpation of the tonsil.

John Sendziak.

Sendziak (Warsaw).—*A Case of the so-called “Angina Ulcerosa Benigna.”* “Przeglqd Lekarski,” 1892, No. 28.

THE author describes a case of this rare disease, to which Heryng first drew attention. A journeyman, aged twenty-four, complained of general disturbance, as well as slight pain on swallowing, lasting several days. At the examination was found:—a little increased temperature; in the mouth, on both posterior arches in their superior parts, two symmetrical, oval ulcers, sharp, circumscribed by the surrounding almost unchanged tissue; ulcers superficial, with greyish-white layer, a little painful, not bleeding. Beyond this, no more serious changes were found. After from ten to twelve days these ulcers disappeared under indifferent treatment without leaving traces (cicatrices). General symptoms also disappeared quickly; slight weakness only remained. In this case the author performed bacteriological investigations of the secretion of the ulcers with positive results—i.e., he obtained in the cultures the same micro-organisms which Bujwid (in Heryng's cases) had cultivated and called streptococcus monomorphus et variegatus. The author ends his paper with comparison of his case with cases described by Heryng. The fundamental difference consisted in the situation of the ulcers (in the author's, posterior; in Heryng's cases, anterior arches). In the author's case there were also comparatively severe general symptoms.

John Sendziak.

Sendziak (Warsaw).—*A Second Case of the so-called Angina Ulcerosa Benigna.* “Nowiny Lekarskie,” 1892, Nos. 8 and 9.

THIS paper was fully published in the JOURNAL OF LARYNGOLOGY, RHINOLOGY AND OTOTOLOGY, 1892.

John Sendziak.

Wagner, Clinton.—*Papillomatous Growths of the Palatal Arches and Uvula.* “New York Med. Journ.” Feb. 25, 1893.

THE author refers to two cases in which papillomatous growths of the uvula gave rise to great inconvenience. In the first case, that of an actress, rhinoscopic examination revealed a slight prominence upon the

posterior surface of the uvula. With the probe this prominence was found to be movable, and to have a pedicle about one-third of an inch long. In the second case a growth about the size of a grain of wheat was found clinging to the extreme tip of the uvula. On being moved with the probe it was found to have a pedicle three-quarters of an inch long. All unpleasant symptoms disappeared on the removal of the growth. The author refers to the frequency with which such growths are passed over. This is probably due to the fact that when the mouth is held wide open, as during an examination for diagnostic purposes, retraction of the soft palate, uvula, and palatine arches takes place, owing to which the growth is made to adhere closely to the surface from which its pedicle springs. In such cases the use of the probe clears up any uncertainties. The author recommends that the pedicle be pulled upon with a pair of forceps, and divided with scissors as near its attachment to the mucous membrane as possible.

W. Milligan.

Heryng (Warsaw).—*A Case of Tuberculosis of the Pharynx terminating in Recovery.* “Gazeta Lekarska,” 1892, No. 31.

In a patient with tubercular changes in the lungs and larynx (these latter were previously treated with good result by means of lactic acid, curettement, and galvano-cautery) there appeared on the soft palate three light-red spots, and next day small whitish nodules, which after twenty-four hours changed into ulcers. They were cauterized with eighty per cent. of lactic acid, and then brushed with a one per cent. solution of pyoktanin. In one week complete cicatrization ensued.

John Sendziak.

Mintz (Warsaw).—*Unusual Case of Diverticulum of the Oesophagus.* “Medycyna,” 1892, No. 29.

THE author describes a case of oesophageal diverticulum in a patient forty-nine years of age, which lasted eight years. Examination led the author to the conviction that this diverticulum was situated in the inferior part of the oesophagus, and that it belonged to the so-called “diverticula e pulsione”—i.e., resulting from internal pressure—and was caused by congenital defect, as most of these troubles are.

John Sendziak.

LARYNX.

Gutzmann (Berlin).—*Rational Treatment of Stuttering.* “Berliner Klin. Woch.” 1892, Nos. 45 and 46.

SEE the report upon the same subject at the meeting of the Berliner Medicinische Gesellschaft in this Journal.

Michael.

Oltuszewski (Warsaw).—*On Disturbances of Speech (Stuttering and Stammering).* “Medycyna,” 1892, Nos. 31 and 32.

THE author describes first the theory of stuttering according to the Vienna and Berlin schools. The first, with Cocen at the head, makes

stuttering dependent on disturbance of respiration, namely, on insufficient pressure of air in the lungs and on the irregularity of respiration; the representative of the Berlin school, Gutzmann, regards stuttering as a functional spastic and co-ordinate neurosis. Corresponding to views so different, each of these schools applies different treatment, of which we cannot here state the particulars. Stammering originates from impossibility of pronunciation of one or many, or even all vowels; it is general or partial. If general it may be central (very seldom) and peripheral. Partial is observed in lisping and pharyngeal stammering. Finally the author gives valuable hints as to the hygiene of speech and prophylaxis of stuttering.

John Sendziak.

Katzenstein (Berlin).—*On Innervation of the Crico-Thyroid Muscle.* “Virchow's Archiv,” 1892.

BY electric stimulation of the nervus pharyngeus medius et vago no contraction of the crico-thyroid muscle is produced. The stimulation of this nerve only produces a contraction of the pharyngeal muscles of the same side, and the cesophagus in its upper part. The section of the nervus laryngeus superior is only followed by partial, not by complete, atrophy of the crico-thyroid muscle of the same side. The section of the nervus pharyngeus medius et vago is followed by partial atrophy of the pharyngeal musculature of the same side, but the crico-thyroid muscle of this side is not influenced. If the nerves of both sides are resected death soon follows. Extirpation of laryngeal nerves is followed by atrophy of the muscles. The author concludes that no nervus laryngeus medius exists.

Michael.

Semon (London).—*The Study of Laryngeal Paralysis since the Introduction of the Laryngoscope.* “Brain,” Winter, 1892.

THE credit of having first recognized a laryngeal paralysis by means of the laryngoscope is attributed to L. Traube. Considerable attention is given to the question of the greater proclivity of the abductors than of the other laryngeal muscles to become paralysed in cases of lesion of the vagus or recurrent laryngeal nerve. Dr. Semon asserts and defends his own well-known views, narrating his experimental and clinical observations. He adduces, among other facts, the early atrophy and destruction of the abductors in cases of organic lesion of the nerves, the relatively early death of the abductors in experimental lesions of these nerves, in favour of the view that there is an actual difference in the biological composition of the said muscles and nerve-endings. The existence of the same peculiarity on the part of the abductor nerve-nuclei in the medulla is indicated by the early tendency of these nuclei to succumb in cases of tabes dorsalis. He quotes and criticizes the arguments and opinions of Krause, Wagner, and the others who have taken part in the controversy.

The question of the cortical centre for phonatory movements is next considered. Founding on experiments made along with Victor Horsley, he insists that the cortical centre of either side controls both vocal cords, and that therefore a paralysis of one cord cannot result from a lesion of the cortex of the opposite side. He was unable to corroborate Masini's experimental result that very weak stimulation of one cortical centre can

produce movements of the opposite cord, and he rejects Garel's otherwise convincing case of unilateral laryngoplegia on account of the absence of the histological examination of the medulla. In view of the non-occurrence of aphonia in comparison with the regularity of occurrence of aphasia in right hemiplegia, and in view also of the difficulty of excluding a bulbar lesion, he advises a very sceptical consideration of cases in which a cortical lesion is believed to have caused unilateral laryngeal paralysis.

Seamon is in favour of the generally received view that the motor supply of the larynx (recurrent, at least) is derived from the spinal accessory. Conflicting opinions are quoted. The central causes of laryngeal paralyses are touched, and some attributed to bulbar disease are believed by Seamon to be due to lesions higher up. Burger's recent studies on the occurrence of laryngeal crises and paralyses in locomotor ataxy are abstracted and eulogized.

This exhaustive essay is accompanied by a bibliographical list containing two hundred and thirty-two references. *Dundas Grant.*

McBride, P. (Edinburgh).—*Pachydermia Laryngis.* “Brit. Med. Journ.” Feb. 18, 1893.

SPECIMEN shown. Dr. McBride states that this disease is only found in men, and gives appearances like the thickening of laryngeal phthisis. It is accompanied by slight aphonia. *Wm. Robertson.*

Lubliner (Warsaw).—*Adenoma of the Larynx.* “Medycyna,” 1892, No. 28.

THE patient, sixty-eight years of age; healthy in general. On the thickened and reddened left ventricular band some small, soft, slightly red, smooth nodules existed. After unsuccessful trials of antisiphilitic treatment the author extirpated by means of a sharp spoon part of the tumour, which under the microscope proved to be an adenoma. After five months the patient appeared again. The ventricular band was uneven: infiltrated; in its posterior part was a nodule the size of a little pea, which was also extirpated. The microscope proved the above diagnosis, although the nature of the tumour was not so distinct. Some abnormality was observed (*vide* report of Sokolowski's case). *John Sendziak.*

Pflüger (Creglingen).—*Flies as Foreign Bodies in the Trachea.* “Württemberger Correspbl.” 1892, No. 31.

A PATIENT three years old had a severe attack of diphtheria, and became comatose for some hours. Tracheotomy was performed without any narcosis. The catheter introduced into the trachea to cleanse it was quickly obstructed. When it was extracted a dead fly was found in the eye. When introduced a second time and aspirated two more flies were removed. A canula was now introduced, and the respiration became normal. Two days later death occurred. The author believes that the flies were inspired by the child when in a condition of coma. *Michael.*

Thorburn, Wm. (Manchester).—*Note on a Group of Symptoms commonly attributed to Dislocation of the Neck.* “Brit. Med. Journ.” Feb. 11, 1893.

THESE result from injury to the head amongst miners, and the condition referred to is spoken of in Lancashire as “having the neck knocked out.”

The head is said to be twisted by a blow or fall ; the patient "goes black in the face," and appears to be choking ; some bystander forcibly straightens the head, or "puts the neck in," and recovery apparently ensues. The above is a description of the train of symptoms in question believed amongst the laity and by some medical men to be due to dislocation of the neck, which is, of course, improbable. Mr. Thorburn attributes the symptoms to a dislocation of the hyoid bone occluding the glottis or a lateral displacement of the entire larynx. He supposes violent and irregular contraction of one or both sterno-mastoids, produced to protect the face, displaces the larynx, which gets fixed under the sterno-mastoid of the opposite side and is unable to return to its normal position. This would lead to asphyxia and cyanosis through pressure on the internal jugular. Forceful extension as referred to above would draw the larynx back to its place, as would also the convulsive efforts of the patient without assistance.

Wm. Robertson.

THYROID GLAND. &c.

Rosenblatt.—*Tremor of the Limbs as a First Symptom of Basedow's Disease.*
"Przeglqd Lekarskie," 1892, No. 36.

THE patient, a woman, aged thirty-nine years, after fright, had rapid, slight, regular tremor in the extremities, increasing by intentional motions without any other symptoms. Afterwards, during one and three-quarter years, certain amendment occurred after cold. Eczema on the face and neck, which both ceased after three weeks, and tremor reappeared, as well as hysterical irritability, palpitation, and inclination to perspiration, likewise emaciation : afterwards the symptom of Gräfe and struma.

John Sendziak.

Westmatt (Manchester).—*Abscess of Thymus Gland.* "Brit. Med. Journ.,"
Mar. 4, 1893.

A SPECIMEN showing the thymus gland from a girl aged two years, who died from symptoms of respiratory obstruction. The gland was large and firmly turned down to the anterior tracheal wall, and flattened the trachea and right bronchus against the oesophagus and vertebra, and also pressed on the recurrent laryngeal nerves. A large abscess occupied its centre but did not communicate with the trachea. There were several caseous centres. The lungs presented numerous miliary tubercles.

Stricture of Oesophagus.—This was from a girl aged three years, who some time previous to death had swallowed caustic alkali. There were three strictures : one behind the cricoid, one three inches from the stomach, a third one-and-a-half inches from the end of the gullet. Gastrostomy had been performed.

Wm. Robertson.

E A R.

Gradenigo (Turin).—*A New Form of Osteo-Tympanal Acoumeter.* “Zeitschrift für Ohrenheilk.” Dec., 1892.

THIS consists of several coils of isolated wire connected by screw terminals with the wires from a faradic battery with interrupted current. It is placed in contact with the bones of the head, and the intensity of the sound transmitted can be varied from zero to a maximum of one hundred by means of an inner iron cylinder, marked with the appropriate graduations and capable of being moved in or out till the minimum volume of sound audible to the patient is found. The pitch depends on the frequency of interruption of the current. With this instrument Gradenigo found evidence of the diminution of bone conduction with increase of age. In cases in which the tuning-fork on the vertex was heard better in the affected ear, this acoumeter was heard better in the unaffected one. He infers from this that the effect in case of the tuning-fork is not due to increase of conduction, but to the increased resonance called forth by a sufficiently loud tone in most cases of disease of the middle-ear. [We confess an inability to appreciate at present the exact force of the arguments we have endeavoured here to reproduce, but, doubtless, a practical trial of the instrument would render its value more evident.—ED.] In all cases of middle-ear disease he found the osteotympanal conduction lowered as tested by means of the *minimal* sound perceived.

Dundas Grant.

Lowe, T. Pagan (Bath).—*A New Method of Inflating the Tympanum.* “Brit. Med. Journ.” Feb. 25, 1893.

THIS consists in applying the air douche in the usual way as the patient holds his breath at the end of a deep inspiration. *Wm. Robertson.*

Bronner, A. (Bradford). “Brit. Med. Journ.” Mar. 11, 1893.

SHOWED specimens demonstrating the anatomical relations of the lateral sinus, mastoid cells, attic, and middle ear. *Wm. Robertson.*

Harris, A. B. (London).—*On a new Micro-Organism of Spreading œdema.* “Journ. of Path. and Bact.” Feb., 1893.

THIS forms the subject of the Liston medal, the research being undertaken at the suggestion of Prof. Horsley, who was struck by the vomer-like appearance of the abscess in the temporo-sphenoidal lobe, arising from otitis media, in a case worth mentioning. The tissues in question (abscess walls) were found to contain two kinds of micro-organisms: one, which formed a buff colony of fair-sized diplococci, and was pathogenic; the other, a pink non-pathogenic organism. About half the recorded cases of otitis media purulenta have been due to pyogenic micro-organisms, strepto- and staphylococci; two cases to Fränkel's

pneumococcus, two cases to Friedlander's pneumo-bacillus. In children the lesions are largely tubercular, while lately, as has been noted in these pages, influenza is not an uncommon antecedent of otitis media. When the membrana tympani is unimpaired then infection spreads per tubam.

The case referred to was that of a female, aged thirty-eight, married, who four months before admission (when she was semi-conscious) had an attack of influenza, leaving her with a discharge from the right ear. This occasioned pain in the same side of the head, and shortly afterwards the face was drawn to the right, while the left side of the body became weak. Vomiting set in without nausea, and after taking to bed she became drowsy, stupid, and finally delirious. On admission she was hemiplegic on the left, with paralysis of the left side of the face. No marked optic neuritis. Mr. Horsley trephined behind and on a level with the upper border of the right squamous suture. Pus was found in a downward direction, and another trephine opening was made further forwards and lower down. Tubes were introduced, cerebral tension was relieved, and paralysis of the left arm became less, while the rigidity had disappeared. Two days later, on laying the right mastoid antrum open, it was found diseased; the tegmen tympani necrosed, causing a communication between the cranial cavity and middle ear. Twenty-eight days after this, the paralytic condition becoming worse, Mr. Horsley trephined behind the first opening, thus freely draining the abscess. The following day the temperature reached 105, when the patient died. The *post-mortem* showed a round hole in the tegmen, where the dura was wanting but adherent around; no meningitis. The hole communicated with an extensive abscess burrowing under the cortex of the temporo-sphenoidal lobe, which abscess was marked by a border five or six millimetres in thickness, of solid oedematous tissue. Pieces of this oedematous tissue placed under the skin of guinea pigs gave rise in a few days to brawny purulent phlegmon, which, on being laid open, displayed a cavity filled with pus. Encapsulated diplococci were found throughout the tissues similar to those found in the original abscess wall in the brain of the patient. *Wm. Robertson.*

Gradenigo (Turin).—*The Clinical Evidences of Affections of the Auditory Nerve.*
“Zeitschrift für Ohrenheilk.” Dec., 1892.

As distinguished from diseases of the labyrinth, these are characterized by *diminished perception chiefly of the tones in the middle* of the range, and sometimes even by their entire loss when tested by tuning-forks (without overtones), not by other instruments or the watch. Another characteristic is an *extreme degree of functional fatigability* of the nerve. This rarely occurs in middle-ear disease or in neurasthenia, and with comparative frequency in disease of the internal ear, but it is only in affections of the nervus acusticus that it is very marked. He has observed this symptom in neuritis and in tabes dorsalis. Hysterical deafness is distinguished from this by the equal diminution of perception for all the notes of the scale, and also by absence of vertiginous attacks. In cases of commencing auditory neuritis electrical stimulation reveals increased excitability of the nerve. *Dundas Grant.*

Baber, Cresswell.—*Auditory Nerve Deafness treated with Pilocarpin.* “Brit. Med. Journ.” Feb. 25, 1893.

IN this case—an unmarried female, aged thirty—deafness came on suddenly eighteen months before admission. Tuning-fork A was not heard on the mastoids or near the auricles. Voice heard only through a powerful speaking-tube. Membrana tympani entire, pale, and slightly retracted. No sign of syphilis. After the first four injections of one-eighth of a grain of pilocarpin the tuning-fork was heard on the mastoids and near the auricles. Rinné's test negative. Twenty-three more one-sixth of a grain pilocarpin injections were given without much benefit in advance of above. Mr. Baber refers this case to the category of those of internal ear trouble remediable by pilocarpin. In this case the nerve deafness was complicated with middle-ear disease, which remained unaltered by the treatment; as the nerve lesion improved the tuning-fork test altered.

W'm. Robertson.

Gradenigo (Turin).—*Monauricular Diplacusis.* “Zeitschrift für Ohrenheilk.” Dec., 1892.

DIPLACUSIS or double hearing may be binauricular or monauricular. In binauricular diplacusis the false tone may be out of tune with the objective (true) one. The interval between them is then usually quite a small one—one-third or one-half to one tone higher or lower. In these *dysharmonic* cases the lesion is a slight affection of the internal ear, accompanying an acute attack of middle-ear inflammation, or an acute recrudescence of chronic inflammation, or else a primary commencing internal ear disease. In other cases the diplacusis is *harmonic*, the false tone is an overtone of the objective one—an octave, fourth, fifth or sixth—above or below the latter. The occurrence is due to the reinforcement of the overtone to the detriment of the fundamental one through alteration in the resonance of the ear cavity produced by middle-ear disease, the internal ear being ordinarily intact. Monauricular diplacusis is analogous to the harmonic binauricular form, the false tone being an harmonic overtone and due to changes in the conducting apparatus. An instance of it in a violinist with unilateral middle-ear catarrh is described. A tuning-fork was held before his ear, and as the tone began to die away it was accompanied by another, an overtone. Another was in a non-musical patient with bilateral middle-ear catarrh and some involvement of the internal ear. Gradenigo could not exclude the possibility of the cause being some increased irritability of the group of labyrinthine elements corresponding to the false tone.

Dundas Grant.

Kosegarten (Kiel).—*Disease of the Ear in Influenza.* “Zeitschrift für Ohrenheilk.” Dec., 1892.

OUT of about 2000 cases of ear disease 97 were attributed by the patients to influenza. In only three were the symptoms very severe, and haemorrhages into the membrana tympani were never present. The “attic” was exclusively or chiefly affected in a remarkable number of cases. In those cases in which the inflammation was confined to the attic the membrane of Shrapnell was intensely congested and swollen and some-

times bulging in a saccular form. The congestion extended to the neighbouring part of the upper meatal wall; the malleal vessels were moderately injected, but the rest of the membrane was normal, with the exception of a slight loss of lustre. Puncture of the membrane of Shrapnell evacuated a quantity of somewhat viscous and usually sanguineous fluid.

Dundas Grant.

X.—Suppurative Median Otitis, with Multiple Nuclei of Suppuration from *Staphylococcii*. "Annales de la Soc. Medico-Chirurg. de Liège," Sep., 1892.

THE patient complained of pains in the tibiae. The diagnosis could not be made sufficiently accurate to justify surgical operation. However, an abundant bilateral otorrhœa occurred, without premonitory symptoms, showing by cultivation a pure cultivation of staphylococcus pyogenes albus, elucidating the condition. Some days afterwards death occurred, and the diagnosis of infectious osteo-myelitis was confirmed. The femurs, tibiae, and fibulae were filled with pus, which was merely a pure culture of staphylococcus pyogenes albus, as determined by the researches of Dr. Mulvoz.

Hieguet.

Schleicher.—Severe Operations for Osseous Otitis. "Ann. de la Soc. de Med. d'Anvers," April, 1892.

THE author reports eleven cases of opening of the mastoid apophysis.

Hieguet.

Koerner and Wild (Frankfort). — *Percussion of the Mastoid Process, along with the Communication of a New Case of Diabetic Caries of this Bone.* "Zeitschrift für Ohrenheilk.," Dec., 1892.

PERCUSSION is practised, as described by Lücke ("Centralbl. für Chir.," 1876, page 673, and "Archiv für Klin. Chir.," 1877, vol. xxi., page 838), for the various bones of the body. A hammer, with a long, springy whale-bone handle, and a steel head, covered at the striking part with hard rubber, is employed for percussing a small area limited above by the linea temporalis, below by the attachment of the sterno-mastoid, in front by the posterior border of the auricle, behind by the hairy part of the scalp. The process is only of use when the soft parts over the mastoid are normal, the slightest thickening—even from the application of iodine, collodion, or the use of chloride of ethyl—being sufficient to alter the resonance. The presence of a perforation of the drumhead with pus in the tympanum does not affect the percussion-sound.

In experiments on the dead body it was found that the resonance was unaltered when the brain was removed, when holes were bored into the antrum through its tegmen, or when paraffin was poured through these holes into the cavities. There was comparative dulness when the whole interior of the mastoid was cleared out from within, and a shell of only a few millimetres in thickness left, the dulness disappearing when the cavity was filled with paraffin. Therefore *disease of the bone itself, and not solidification of its cavities, is indicated by diminution of the normal resonance on percussion.*

In a case of severe deep-seated mastoid pain without external signs, and without rise of temperature, resisting all treatment for nineteen days,

there was found abnormal dulness on percussion. The urine contained sugar, and a diagnosis of acute central osteitis of the mastoid of diabetic origin was made. This was confirmed by operation, almost complete breaking-down of the bone being found at a depth of about three millimetres, the dura of the posterior fossa and the lateral sinus being laid bare. [Kirchner and Koerner have already published cases of severe disease of the ear complicating diabetes. The results of examination of the urine is most important in the prognosis of suppurative otitis.—ED.]

Dundas Grant.

Bresgen (Frankfurt-a-M.).—*What are the Causes giving rise to Inflammations of the Ear or the Neighbouring Parts after Operations upon the Nose and Naso-Pharynx?* “Wiener Med. Woeh.” 1892, Nos. 45, 46 and 47.

THE author recommends that patients suffering from catarrhs or other affections of the nose, or after operations, should sniff with great care, so that no mucus may enter the nose. During sniffing one nasal meatus should be closed, and the mucus be removed through the other. Inflammations of the upper regions of the nose may be propagated by the lymph channels, and also by suppuration of the surface. The first condition is realized if the discharge of the pus is prevented by swelling of the mucous membrane; the second if the nose is free so that the pus can enter the naso-pharyngeal space. The consequences of operations may be prevented by careful operation and after-treatment, especially by the employment of pyoktanin.

Michael.

Braislin, W. C.—*Otitis Media Purulenta following Amputation of the Uvula.* “New York Med. Journ.” Mar. 4, 1893.

In this case the patient, a man aged fifty-five, suffered from pulmonary phthisis. He was troubled by a most distressing cough, which was considered by the author to be aggravated by an elongated uvula. The elongated portion was accordingly removed. Severe pain which was felt at the time of its amputation lasted for several days. The patient was seen three months later, and then stated that his right ear had been discharging for six weeks. The membrane was found thickened and opaque, and perforated in two places. The discharge was thin and watery, and almost without odour. The author inclines to the view that the middle-ear disease was a consequence of the operation upon the uvula, and also that it was of a tubercular nature, for the following reasons: (1) the absence of pain at the time the discharge from the ear appeared; (2) the resistance of the disease to all forms of treatment; (3) the marked tenderness on the application of any remedial measure; (4) the existence of extensive tubercular lesions in the lungs.

[It is to be regretted that in this case no examination of the aural discharge for tubercle bacilli was made. Many chronic middle-ear lesions, according to the abstractor's experience, are of a tubercular nature, and in suspected cases it is advisable to examine the discharges (or granulation tissue if present) for bacilli. In tubercular ear lesions there is, as a rule, early involvement of bone; hence a somewhat more heroic line of treatment is indicated than in those cases of non-tubercular origin.—ABSTRACTOR.]

W. Milligan.

Koerner (Frankfort).—*The Extension of Divisions of the Tympanum along the Carotid Canal into the Cranial Cavity.* “Zeitschrift für Ohrenheilk.” vol. xxiii., Dec., 1892.

THE internal carotid in its canal gives off arteries, which supply the tympanum. These pass through minute canals in the intervening bony wall. Similarly veins pass back into a venous plexus surrounding the artery and communicating with the cavernous sinus, and lymphatic vessels from the eye, accompanying the ophthalmic artery, are continued along the carotid. The bony wall is often very thin, and sometimes incomplete, and in some cases the carotid may be punctured during paracentesis. In simple middle-ear suppuration pus has been frequently found in the carotid canal. The lymphatics may be thrombosed, and swelling of the optic disc occur without intra-cranial complication. So also the venous plexus may be infected, and disease of the cavernous sinus result. This last condition would be indicated by pyemic symptoms, combined with same-sided paralysis of the abducent nerve, and both-sided optic neuritis. The carotid may be eroded through disease of its walls, and fatal haemorrhage result. Tuberculous disease of the tympanum may extend along the vessel to the pia mater. Cerebral embolism may result from carotid thrombosis in middle-ear suppuration, with caries of the petrous bone, as in cases observed by Gairdner and Barr (“Glasgow Med. Journ.” Oct., 1887), and by Causit.

Many references are given in the original paper, showing the interest and importance attaching to diseases of this region. *Dundas Grant.*

Jones, Hugh Ed.—*Cases of Intra-Cranial Abscess, with Remarks.* “Liverpool Med. Chir. Journ.” Jan., 1893.

IN this interesting and important communication the author lays stress upon the following important proposition : *that until the so-called mastoid antrum, the attic of the tympanum, the anterior surface of the petrous bone, and (in cases of suspected cerebellar abscess) the sulcus lateralis have been thoroughly explored for pus, it should not be assumed that a temporo-sphenoidal or cerebellar abscess exists, or at least no operation should be undertaken to relieve the last two conditions which does not in its preliminary part satisfactorily dispose of the others.*

In the first case, the patient, a boy aged twelve, had suffered from an offensive purulent discharge from the left ear for three or four years. Three days before admission the discharge became markedly diminished, and severe pain in the head was complained of. The following day the left facial nerve was found paralysed. During the following few days the temperature varied from 102° F. to 99° F., and the pulse from 72 to 56. The patient was drowsy and complained of always feeling tired. He answered questions rationally but very slowly. An attack of aphasia was noticed at one time which lasted for an hour. Double optic neuritis and slight divergent squint of the left eye were observed. Tâche cerebrale could easily be elicited. There was no particularly tender spot over the mastoid or temporal area of the skull. A disc of bone was removed one inch above and half an inch behind the osseous meatus (borders). The dura was noticed to bulge slightly. A grooved needle was pushed inwards into the

substance of the temporo-sphenoidal lobe, and greenish fetid pus mixed with small shreds of solid matter (quantity six to eight drachms) trickled out. The cavity was washed out with warm boracic lotion. A few days after the operation drainage was found somewhat imperfect. It was also noticed that *some kind of communication existed between the abscess cavity and the cavity of the tympanum.* The patient was put under chloroform again, the abscess cavity reopened, and a No. 12 gum elastic catheter placed *in situ.* The patient made an excellent recovery.

In the second case the symptoms pointed to the presence of a cerebellar abscess. On exploration no pus, however, was found. The author thinks it probable that a subdural abscess with meningitis existed, which discharged through the tympanic cavity.

The patient, a man aged twenty-eight, had had left-sided middle-ear disease for from sixteen to seventeen years. On September 28th he was found to have left facial paralysis with acute pain over the mastoid process. An operation was undertaken (with probable injury to the lateral sinus), which gave temporary relief. On November 6th the headache returned. During the next few days vomiting and cold shivering attacks were frequent. On admission to hospital patient complained of great headache, had a staggering gait, but no giddiness. There was no mastoid œdema, and no optic neuritis. The tympanic cavity was first cleared out, and then the mastoid antrum was opened, but was found to contain no pus. The headache now disappeared for two days and then returned. The temperature, pulse, and respirations were subnormal. Commencing optic neuritis was also found. It was decided to explore the cerebellum. This was accordingly done, but no pus was found. Two days after this second operation a copious discharge of pus from the meatus took place. After this the patient gradually recovered and left the hospital in apparently perfect health.

[The author appends in a tabular form the leading symptoms met with in intra-cranial lesions following ear disease. Those interested in this subject would do well to refer to the original paper.]

W. Milligan.

ASSOCIATION MEETING.

PARISIAN SOCIETY OF LARYNGOLOGY, RHINOLOGY, ETC.

Phonetic Role of the Trachea or "Porte Vent." By Dr. MOURA.

§ I. LENGTH.

AFTER quoting other authors (Galen, Dodart, Muller, P. Koch) Dr. Moura goes on to remark that the vibrations of the glottis and of the wall of the tracheo-bronchial tree are not of the same order, the one being direct, and others indirect, or, so to speak, second-hand. The tracheo-bronchial tree being during life in a state of tension (the isolated trachea after death removed from the body shortening ten, fifteen, twenty millimetres) permits respiration to fulfil in part the conditions of rigid tubes of musical instruments, e.g., the hautboy and flute, and gives it a resistance

sufficient to vibrate. This fact is of great importance, and explains the movement of the aerial tree in efforts of speech or singing. The vibratory influence of the length of the tracheal tube on the formation of glottic sounds is founded on :

1. Its tension and resistance diminish when it is shortened, whilst its calibre increases by descent of the larynx.

2. The tension of its walls increases when it lengthens, and its calibre diminishes as the larynx rises.

This double movement is associated with the lengthening and shortening of the pharyngeal tube or "porte voix" (voice carrier), the movements of the "porte voix" (voice carrier) and "porte vent" (wind carrier) occurring simultaneously and inversely.

The ascent of the larynx may reach twenty-five millimetres during phonation, and thirty to thirty-five millimetres during deglutition. The tracheal tube thus submits to a shortening or lengthening of twenty to twenty-five millimetres. The length of this tube, being of an average of eight to ten centimetres, can therefore experience a diminution or augmentation of one-fifth or even one-fourth of its length, corresponding to nearly three and a half tones of the musical scale.

Lengthening of the trachea and diminution of its calibre take place simultaneously, and either one or the other increase the acuity of sounds making the aerial undulations of the "porte vent" smaller and the vibratory nodes of the tracheal wave more numerous.

Their effects are superadded, doubling or tripling the small influence which the length may have on the formation of vocal sounds.

Shortening of the trachea and increase of calibre will inversely influence not acuity, but depth of sounds.

§ II. DIAMETERS. DEFECTS.

The calibre of the trachea is in man eighteen millimetres, and in woman fourteen millimetres, on the average, but the tracheal tube is not as regular as the tube of a wind instrument.

The antero-posterior and transverse diameters are unequal once out of twice in the female sex, and twice out of three times in the male. It is more frequent in the latter, because the tracheal diameter, varying from ten to twenty-six millimetres, allows of sixteen variations, while in the female the diameter is from seven to twenty-one millimetres, or allowing of fourteen variations.

In a trachea of seven millimetres the aerial vibrations will produce a sound in which the sonorous vibrations correspond to the double upper octave of the twenty-one millimetre trachea, and in the male the vibrations of air in a trachea ten millimetres diameter will be much above those of a trachea of twenty-six millimetres diameter.

When ordinary reeds are united with tubes, the sound produced is not that of the reed, but one of the sounds of the tube nearest related to its reed. The glottic sound is therefore modified by the sound of the tracheal wave, and is highest when the undulations of the latter are smaller than the glottic vibrations, and lower if they are greater.

Tracheas not only vary in their diameters, but are often irregular in their course. They are, in some individuals, flattened antero-posteriorly

or laterally, or at some particular point or portion of their length, sometimes retracted or S-shaped. Such defects help to alter and falsify the tone of the vibrations of the human reed, and explain why certain persons can neither sing nor speak clearly, why some have a low and veiled speech and others have a falsetto, shrill, acute voice persisting during life, although the larynx and voice-carriers may be conformed just like those of good speakers and singers.

§ III. PARALLELISM OF DEVELOPMENT. ANOMALIES.

The parallelism of anatomical development between the length of the ligamentary glottis and the diameter of the trachea and the diameter of the cricoid is very often defective.

Thus in two female subjects, whose vocal ligaments measured nine millimetres, the diameter of the trachea was in one eight millimetres, and in another fourteen millimetres. The voice of the first could not have the same tone as the latter. In one the voice must be heightened, in the other lowered.

The inverse of this is seen in a vocal ligament of two, three, and four millimetres longer than the calibre of the trachea : the influence of the tracheal wave is to raise the glottic tone.

This occurred in one female patient, whose vocal ligaments measured thirteen millimetres, the transverse diameter of the trachea being ten, and the antero-posterior nineteen millimetres. Numerous vibratory nodes are inevitable in such a case in the tracheal wave. Such defects of parallelism are more common in the male sex.

Laryngometry demonstrates that there are individuals of each sex in whom this apparatus is the same, the vocal ligaments of ten millimetres corresponding to a masculine trachea of eighteen to twenty millimetres diameter; others being eleven millimetres diameter have tracheas of fifteen to twenty millimetres; some with a number of thirteen millimetres have a trachea of twenty to twenty-one millimetres, etc.

Conversely, ligaments of twenty millimetres exist with tracheas of eighteen and twelve millimetres, seventeen and thirteen millimetres diameter.

The calibre or diameter of the cricoid is the most fixed and regular point of the respiratory channel, so that the value of the column of air inspired, other things being equal, may be calculated according to the circumference of a circle having for radius the half of the inferior diameter of the cricoid.

Examples :—

Subject.	Lig. Voc.	Cricoid.	Trachea.
1.	15mm.	10mm.	21mm.
2.	10	18	18 ..
3.	14	10	18 ..
4.	15	10	20 ..
5.	13	17	18 ..
6.	15	13	18 ..
7.	14	14	21 ..
8.	20	14	18 ..
		c.c.	

Thus 1, 4, and 6 having vocal lips of the same length, 15 millimetres, the diameters of the trachea being 6, 5, and 3 millimetres more, the

tracheal waves correspond to more ample vibrations than those of the edges of the glottis, and combining with them lower the glottic tone. But the cricoid has only ten to thirteen millimetres diameter in 1 and 6, *i.e.*, eleven to eight millimetres less than the calibre of the trachea. The tracheal vibrations can influence the glottic vibrations only to elevate their tone.

The eighth subject is the same.

The seventh subject, the diameters of whose cricoid ring and ligaments are the same, is in the most favourable acoustic conditions for unison between the glottic vibrations and cricoid waves.

Is it not evident that the low, cavernous, sepulchral voice of the ventriloquist is obtained from a trachea of large diameter? It cannot be performed by women.

§ IV. ACOUSTICS OF REED TUBES.

The author is in entire agreement with the laws laid down by Muller (*Tome II.*, p. 127), and which he quotes at length.

These laws explain the influence exercised by the tracheal or sub-glottic wave upon the vibrations of the edge of the glottis, and, again, upon the sonorous waves of the laryngo-pharyngeal resonator, *i.e.*, upon the voice.

§ V. PECTORILOQUY, OR RESONANCE OF THE VOICE IN THE CHEST.

Dr. MOURA severely criticizes the statements of Fournié ("Phys. de la Voix et de la Parole"), who "has been endowed with an original and fertile imagination." The harmonic tables of Fournié and others are imaginary. That such should exist in the trachea it would be necessary for it to be not only rigid, but perfectly regular. Laryngometry shows the slight foundation for this invention.

The retention of the voice or of the glottic tone in the chest is in relation to the amplitude of the sub-glottic vibrations and inversely to their number. It is enfeebled as the sound rises, and ceases at a certain elevation, that of acute notes of both natural voices, ordinary and complementary (plain voice and head voice). If the centre of the tracheo-bronchial resonance mounts progressively from low to high, meeting the larynx, vibratory nodes are formed, probably more numerous in the column of air of the "porte vent." Retention decreases, becomes null or very feeble, the orifices of the glottis becoming rigid, small, and no longer vibratory: the expired air is broken on the edges more than it can cause to vibrate, and the sound takes the *timbre* and character of whistled (*sifflées*) or fluted notes.

Vibrations of the glottis are reinforced by the tracheal wave, provided that there is no irregularity of conformation too much malforming the tube's calibre. The sensations felt by singers in the chest are sensations of assistance to the voice.

Clinical observation and the laryngoscope prove that deep and full notes resonate in the tracheo-pulmonary channel ("porte vent").

These notes, to the number of about ten, form the so-called chest voice. They form the first two registers, the deep and the full of the first natural voice (or of "plain-chant").

REVIEWS.

Sallard.—*Les Amygdalites Aigues.* (“The Acute Inflammations of the Tonsils.”) Paris: Rueff et Cie. 1892. Bibliothèque Médicale: Charcot-Debove.

THIS is an excellent little work of two hundred and forty-pages—a careful study of the acute inflammations of the tonsils, upon which so much good work has been done in late years, especially by French clinicians. The subject is studied according to the following plan:—

1. Non-suppurative tonsillitis (catarrhal, follicular, parenchymatous).
2. True suppurative tonsillitis (intra-tonsillar limited to the parenchyma).
3. Peritonsillitis (pharyngeal and lingual).
4. Anomalous forms of tonsillitis.

The etiology of the disorder is considered fully from a micro-biological point of view, and Sallard thinks that the hypothesis which regards tonsillitis as a general infectious disorder, a fever of which the angina is only a manifestation, is the most rational and most in keeping with the majority of facts.

The so-called “infectious tonsillitis” forms are carefully discussed, and the author’s work is replete with information and references to modern scientific and clinical work.

Suffice it to say that this little book is a most instructive essay upon the subject of tonsillitis, original in its method of dealing with the subject, and scientific in its treatment of the same. The whole subject of “tonsillitis” has been so long enshrouded in confusion that we welcome the efforts of the author to reduce the subject to some method, and place it on a scientific basis. As everyone in practice sees daily so many cases of tonsillitis—many of extremely anomalous type—so every practitioner will arise from the perusal of the author’s readable essay with a sense of enlightenment upon a very obscure and difficult subject.

R. Norris Wolfenden.

Bourges.—*La Diphthérie.* (“Diphtheria.”) Paris: Rueff et Cie. 1892. Bibliothèque Médicale: Charcot-Debove.

THIS is another excellent essay of two hundred and twenty-six pages, forming one of the series of short text-books of Rueff’s Medical Library.

Dr. Bourges studies the subject from the standpoint that “diphtheria is a contagious disease due to the bacillus discovered by Klebs, and studied by Loeffler.”

At the point of infection the development of the bacillus determines a fibrinous false membrane. It never invades the organism, but may develop at many points, and produces an active poison (Roux and Yersin), easily diffusible in the circulation. There are two sets of symptoms—one local, producing “mechanical” accidents, due to false membrane; the other general, due to poisoning by the diphtheritic toxine.

An excellent chapter treats of the etiology and bacteriology of the disorder.

Concerning the diagnosis of the pseudo-membranous angina at the commencement of scarlet fever, the author states that he made cultivations in nineteen cases, and found only one to be diphtheritic; in the others the streptococcus pyogenes was constantly present.

Of forty-five such cases as yet bacteriologically examined the diphtheria bacillus has only occurred in one.

The late pseudo-membranous angina of scarlatina is almost always truly diphtheritic, though in one case examined by the author there were only streptococci.

The commonly stated clinical signs of false diphtheria of scarlatina as distinguished from true diphtheria are fallacious, the most reliable signs being that in the former the general condition is less affected, and the pallor and depression are less. Diagnosis is always difficult, and often impossible.

With a good chapter upon the pathology of the disease, the book closes with some practical directions as to treatment. It is just such a work as the practitioner requires, presenting the subject in a concise and intelligible form, and founded upon the most reliable of recent scientific work.

R. Norris Wolfenden.

Luc.—*Les Neuropathies Laryngées.* Paris: Rueff et Cie. pp. 276.

THIS little work is another of the series of medical treatises produced under the direction of Profs. Charcot and Debove. Its author informs us in his preface that he has been inspired by the method of the great Salpêtrière clinician, and endeavours to substitute for more or less theoretical descriptions, found in most classical treatises, a classification based upon clinical and anatomico-pathological grounds.

The work opens with a short critical historical survey of the subject. The matter of the claims to priority as to the so-called law of abductor paralysis is referred to. An accurate review of the physiological innervation of the larynx follows, in the course of which the relation of the central cortex to the laryngeal movements is discussed, in which reference to both experimental and clinical observation is made. The neuroses of the larynx are described in three sections, viz., sensory, motor (hyperkinesia and hypokinesia), and dyskinesia or incoordinate movements. As to the so-called laryngeal vertigo, Dr. Luc thinks that while nothing seems more legitimate than the hypothesis of an epilepsy with laryngeal aura, this can only be admitted theoretically, and we are led back to the explanation which Charcot first proposed, viz., a vertigo *sui generis* arising from the larynx similar to the auricular and gastric vertigos.

In laryngeal spasm in the adult, the author speaks of cocaine locally applied to the pharynx or larynx (ten to twenty per cent.) as of the greatest efficacy. He does not consider cough a laryngeal spasm. Though contraction of the adductors occurs, it is not indispensable. It is less a laryngeal act than a sudden contraction of the expiratory muscles.

The laryngeal hypokinesias naturally occupy the greater portion of

the work. The various forms of laryngeal paralysis are conveniently grouped together and illustrated. Laryngeal neuritis comes in for a share of attention, and Dr. Luc thinks that the term should be limited to those cases in which the appearances develop with suddenness in an individual who may or may not be rheumatic, but who is exempt from all signs of hysteria, a paralysis affecting the range of the superior or recurrent laryngeal, and an absence of any appreciable cause of compression, a diminution of the faradic reaction of the muscles and progressive cure following both forms of electrization.

Paralyses of bulbar origin are next detailed (glosso-labial palsy, sclerosis, tabes, softening, etc.).

A good chapter deals with the contested point whether there are laryngeal paralyses produced from a lesion of the cerebral hemispheres, and the recent experimental work of Semon and Horsley, and clinical observations of Garel and Dor, and Déjerine, are discussed, and in the end the author forms the conclusion (with Raugé) that laryngeal paralysis of cortical or subcortical origin will doubtless cease to be an exceptional clinical phenomenon when examination of the larynx of all patients affected with cerebral lesions, and especially hemiplegia, becomes in hospitals a matter of routine.

Myopathic paralysis is briefly discussed, and a useful chapter upon the diagnosis and semeiology of laryngeal paralyses follows. The book closes with the consideration of the dyskinesias, reflex, phonatory, inspiratory, chorea, paralysis agitans, disseminated sclerosis and tabes.

We congratulate Dr. Luc upon having produced a most excellent treatise, and having exercised a great deal of skill in presenting clearly and concisely, within the limits of a short book of under three hundred pages, a most difficult subject. He has left nothing of importance unmentioned, and has exercised a considerable degree of critical acumen in the discussion of certain contested points, and the manner in which all the matter is presented to the reader is a model of lucidity. The work cannot fail to be of immense value to the student (and practitioner) of laryngology.

We should like to add a word of commendation to the publishers of this series of manuals for the beautiful manner in which they are got up. The pleasure of perusal of any work is enhanced by the fact of its being presented to the reader in artistic shape. As to elegance, excellence of type, and general handiness, this series of short treatises leaves nothing to be desired.

R. Norris Wolfenden.

NEW PREPARATIONS.

Kutnow's Anti-Asthmatic Powder and Cigarettes.

This consists of a mixture of dried anti-spasmodic and sedative herbs, and some deflagrating powder (nitrate of potash), a teaspoonful of which is to be burnt upon a saucer, and the fumes are to be inhaled. Its

application is precisely the same as some other well-known asthma powders, compared with which it seems to be quite as effective, and, if anything, somewhat less irritating. It is worthy of extended trial, especially now when the "hay-fever" season is nearly upon us, and many such sufferers will doubtless find relief from this preparation. The cigarettes contain the medicated powder in a more convenient and an effective form.

Kutnow's Improved Effervescent Carlsbad Powder.

Carlsbad powder is an old friend, and it is pleasant to find that it is now presented under a form which robs it of its former somewhat nauseous properties. The powder being prepared with the addition of Carlsbad salt, and containing the original salts of soda and potash which give to Carlsbad its aperient properties, is rendered palatable without depriving it of its medicinal virtues by making it effervescent.

Bullock's Aural Ovoids.

Two samples have been submitted to us, viz., opium ovoids (one-fifth of a grain) and iodoform (one grain). These ovoids have been recommended in Prof. Grüber's "Text-book of Diseases of the Ear." A number of preparations can be administered in this form. It is needless to say that they are prepared with all the care we should expect from such well-known pharmacists, and these ovoids cannot fail to be of the greatest service in aural therapeutics.

BURROUGHS & WELLCOME'S PREPARATIONS.

Tabloids of Compressed Ichthyol. (Two and a half grains each.)

Ichthyol has found an extended use in dermatology. It is, however, serviceable in rhinology, more particularly in the erythema of the external parts of the nose which is connected with hypertrophy or chronic congestions of the turbinated bodies. It is, however, a nauseous drug, but Messrs. Burroughs & Wellcome have succeeded in presenting it in an agreeable form by compressing it into tabloids, each of which has a soluble coating of sugar. It can thus be administered pleasantly and internally.

Nasal Tabloids.

1. Alkaline. Rx. Pulv. borac. Gr. v.
Sodii chloridi „ v. in each tabloid.

2. Alkaline and antiseptic. Rx. Sodii bicarb. ... Gr. v.
Pulv. borac. ... „ v.
Acidi carbol.... „ $\frac{1}{2}$ in each tabloid.

One of either of these tabloids may be dissolved in a wineglassful of tepid water and used as a wash, or spray application to the nose or nasopharynx. These combinations form the lotions commonly prescribed by rhinologists for cleansing the nose, and in presenting them in this compressed and handy form Messrs. Burroughs & Wellcome have done a

real service. For persons compelled to travel about, one or two of these glass capsules carried in the waistcoat pocket has many advantages over the cumbersome medicine bottle, so liable to accident or breakage.

Tabloids of Pure Tar.

This drug, of such well-known use in chronic pulmonary disorders, has been put up by Messrs. Burroughs & Wellcome in the form of tabloids, each containing one grain, which are a very useful addition to the pharmacopæcia.

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2 Tabellæ " " " " 1—2000

4 Tabellæ " " " " 1—1000

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Cod Liver Oil and Hypophosphites.

WE regard this as one of the very best preparations which has been put on the market for a long time. The flavour of the oil is so disguised that children take the emulsion greedily, when mixed with a little milk. It is a very elegant preparation.

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FATAL CASE OF ACUTE ÖDEMA GLOTTIDIS.

By HUGH MONTGOMERIE, M.D.,

Physician to the West Cornwall Dispensary and Infirmary, Penzance.

THE comparative rarity of ödema glottidis following acute pharyngolaryngitis leads me to hope that this case may be of some interest to the profession.

On March 30th of this year I was asked to perform a *post-mortem* examination by my friend Dr. Davy. I learned that the deceased was a locomotive engine driver, forty-three years of age, who, with the exception of slight sore throat, had always enjoyed robust health. He had once consulted Dr. Davy—a year ago—in one of these attacks, who found slight pharyngitis.

The wife informed me deceased came home that morning (March 30th) on the engine from Falmouth, where, the previous day, he had to leave off work owing to sore throat. The morning, though fine and dry, was chilly, with north-east wind. As he seemed so uncomfortable from pain in swallowing and hoarseness, she sent for the doctor at 10 a.m., who, finding the patient's pharynx inflamed, sent him to bed and prescribed. The advice was followed with alleviation of the symptoms till about 2 p.m., when the hoarseness becoming worse, and stridor setting in, the doctor was sent for, but on arrival very shortly found the patient dead.

On close inquiry of the wife, we found that there had been some stridor for about an hour previous to the death of the patient, but that severe dyspnoea only lasted some five minutes or so before the fatal termination took place.

A *post-mortem* examination was held the same evening, about four

hours after death. On removing the larynx and part of the trachea, the lumen of the glottis was found to be quite closed by edematous swelling of the walls. In colour the swelling was pale yellow and glistening; on palpation it was soft. The epiglottis and aryteno-epiglottidean folds were comparable to sausages in shape. On separation of the parts the false cords were also found to be much swollen, and the true cords red but not swollen.

As we could not get permission, a further examination of the body was not made, but there was no reason to suspect any organic mischief which might have caused the rapid œdema.

EMPYEMA OF THE MAXILLARY SINUS,

And its Relation to Diseases of the ANTRUM OF HIGHMORE.

By Dr. MOREAU R. BROWN, Professor of Rhinology
and Laryngology, Chicago Polyclinic.

(Presented to the American Laryngological Association as a Candidate's Thesis.)

THE past year has been fruitful of more progress in the line of study of diseases of the antrum of Highmore than any previous time. We are only beginning to clear up some of the many occult pathological conditions which have been overlooked in the past. To be the better enabled to substantiate my arguments for the proper treatment and the better understanding of antral diseases, I will introduce my subject by a brief sketch of the anatomy of the maxillary sinus.

Anatomy.--The superior maxillary sinus or antrum of Highmore is an irregularly pyramidal cavity. The walls are quite thin, and correspond to the facial, zygomatic and orbital surfaces. The base is directed to the nasal side, and the apex extends into the malar process of the superior maxilla. The lateral walls correspond to the orbital cavity and lateral plates of the superior maxilla. Its base or inner wall which separates it from the nasal cavity consists of a portion of the superior maxilla, palate, inferior turbinate and unciform process of the ethmoid. The opening which communicates with the nasal fossa is closed in the normal state to a considerable extent by the unciform process of the ethmoid, palate, and the inferior turbinate bones, reduced by the pituitary mucous membrane to one or two small apertures.

On *post-mortem* examinations, we frequently find bony projections and laminae similar to those in the cranial sinuses, sometimes dividing the cavity into compartments more or less complete, being both transverse and perpendicular. The floor is more or less irregular, being according to Reschreiter, always below the level of the floor of the nasal cavity in men, which fact was corroborated in a number of sections made, being assisted by my associate, Dr. J. F. Oaks, to whom I am indebted for the sections from which the accompanying photographs were prepared, in which we found the same fact to hold

good in the female as well as the male skull. There are seen conical eminences corresponding to the roots of the teeth in this situation corresponding to the first and second molars. In some instances the floor of the sinus is perforated by the dental roots in this situation. Examination of a number of cadavers disclosed a pretty uniform thinness of the antral walls, more especially the orbital surface, which explains the tendency to exophthalmos and orbital abscess, where there is obstruction to the escape of pus from the ostium. We also found, in five out of twelve antra examined, disseminated and aggregated cysts studding the mucosa, usually of the floor and apex varying in size from three to six millimetres in diameter. The capacity varies greatly. It is relatively small in the young and larger in the adult. It varies much on the two sides. We found as a result of a number of measurements of adult antra the maximum capacity to be 15 centimetres or 3·75 drams, the minimum 8·5 centimetres or 2 $\frac{1}{2}$ drams, making an average capacity of 11·75 centimetres or 2·87 drams.

Etiology.—Opinion has been nearly equally divided as to the relative frequency with which empyema of the maxillary sinus is dependent upon dental periodontitis and intra-nasal disorders. Dentists claim that the majority of cases observed by them are due to diseased teeth, while rhinologists of late consider intra-nasal diseases as a very prominent etiological factor.

In a report of twenty cases presented to the Illinois State Medical Society on May 8th, 1890, I assigned a very prominent position in the list of causes to the condition commonly known as "catching cold." More extended observation has but served to strengthen me in this opinion. The mucosa of the maxillary sinus becomes inflamed, the inflammatory exudate is retained by closure of the ostium from hyperæmia and infiltration of the mucosa, the exudate degenerates into pus, as described by Bosworth.

The following synopsis of a case taken from my note-book illustrates this condition. Mr. X., after exposure on a cold and windy day, was confined to the house with a severe pain in the left cheek, simulating neuralgia. In a few days a discharge of foetid pus set in from the nasal cavity of the affected side. This was followed by partial stenosis due to turgescence of the inferior turbinal, which was not present at the outset of the illness.

The inference in this case seems legitimate that the inflammation of the mucosa of the maxillary sinus was primary to and independent of, if not causative to, the inflammation of the nasal mucous membrane.

A claim might be made that the antral trouble had overshadowed the nasal disturbance in the beginning. That, however, is refuted by the fact that in other similar cases a careful examination in the early stages discloses no acute disorder of the nasal cavities.

As other causes of antral diseases, I will briefly mention stenosis or closure of the ostium maxillare by intra-nasal tumours, traumatism, extension of catarrhal inflammation from the nasal and accessory cavities, suppurative degeneration of cysts, dentigerous cysts owing to error of development and eruption of the teeth, epidemic furunculosis, scorbutus,

mercurialism, infection (erysipelas and the exanthemata), foreign bodies (teeth), papillary and polypoid degeneration of the mucosa, polypi extending into or taking their origin from the margin of the ostium, neoplasms, and la grippe.

Symptomatology.—The literature of antral disease in pre-rhinoscopic times is a very meagre one. The classical symptom was distension, with more or less marked exophthalmos and nasal stenosis on the affected side. Since 1886, Ziem and others have added much to the study of antral disease with its many and various subjective and objective symptoms. As to the first mentioned symptom, distension, it is rare, except in those cases where there is complete obstruction to the exit of the pathological contents by the normal ostium, absence of the usual communication with the other accessory sinuses, or in the presence of a neoplasm or cystic tumour (Virchow).

The more common symptoms of antral disease are, viz.: (1) Pain referable to the cheek of a neuralgic character, with a sense of fulness and sometimes pressure in the direction of the orbital cavity. (2) Odontalgia, with tenderness of teeth on pressure and over canine fossa. (3) Distension, if there be stenosis of the ostium, and consequent retention of pus, with intra-orbital and supra-orbital neuralgia, or diplopia. (4) Purulent discharge from the nose, periodic in character, free from odour or foetid, unilateral or bilateral. (5) Boyer, of Brussels, has called attention to the more free discharge of pus by holding the head downward and leaning forward. (6) Link, of Lemberg, claims to have found a new diagnostic sign in the palpation of the hard palate. (7) McBride, of Edinburgh, has directed attention to "a marked redness of the gingival mucous membrane corresponding to the affected side." (8) Anterior rhinoscopy discloses pus in one or both nares of a thick, yellow and creamy nature, which can often be demonstrated by Boyer's position to come from between the middle and inferior turbinals or middle meatus in the vicinity of the ostium maxillare.

In the so-called latent form, where the disease is insidious and of slow evolution, there may be an entire absence of symptoms in the earlier stage, or the symptoms are quite mild. The individual imagines he has taken cold, and experiences but little pain. He seeks relief chiefly from the rather free discharge which necessitates the troublesome use of handkerchiefs, and perhaps for an uncomfortable feeling of partial occlusion of the nasal passage. The formation of pus may be preceded by slight rigors. Several of my patients complained of mental disturbances, a feeling (quoting the expression of the patient) "as if they were losing their mind." One man forgot entirely, within a few hours, things which in his ordinary physical condition would have been strongly impressed on his mind; another developed a sudden impulse to suicide.

Diagnosis.—There has been of late much speculation in reference to the diagnosis of diseases of the maxillary sinus. The attention of the workers in this comparatively new field has been especially directed to one of the more constant symptoms or objective phenomena, viz., a purulent discharge by way of the normal or accessory openings of the sinus into the nasal cavity, or an artificial opening made by one of the

methods of exploratory puncture. We may have all the classical symptoms of disease of the maxillary sinus, and yet no presence of pus or, as Ruault puts it (when he was disappointed by not finding pus in a case where transillumination showed a beautiful sub-orbital umbra), "we can have opacity without empyema, but we cannot have empyema without opacity." Pus in the maxillary sinus may be the result of an acute, sub-acute, or chronic inflammatory or suppurative process, due to extension from the nasal or accessory cavities, alveolar caries or pyorrhœa. It may owe its presence to the fact that, being on a lower level with the nose and other cavities, it becomes a receptacle of pus formed in the nose or the accessory sinuses to the retention of the normal secretions, from occlusion of the ostium maxillare, which, according to Bosworth, invariably degenerates into pus, etc. We must therefore demur to the emphatic statement of Garretson, that "diseases of the maxillary sinus are for the most part simple and easy of diagnosis." We are rather inclined at the present time to voice the statement of Greville Macdonald when he says that the diagnosis of antral diseases is one of the most difficult points in the domain of pathology.

Antral diseases are much more frequent than past clinical observations have led us to believe. Gradenigo has recently given us the result of 103 autopsies, in which he discovered pus in the maxillary sinus in 18 per cent. of the number. Jeanty, of Bordeaux, has made a study of the same subject, under the title of "Latent Empyema of the Antrum of Highmore," tending to corroborate the above fact of its greater frequency. He has observed that there are many cases of empyema of the maxillary sinus where the presence of pus provoked no symptoms, and where the only sign was a purulent or muco-purulent nasal secretion in not sufficient quantity to attract special attention.

Differential Diagnosis.—Since the subjective symptoms vary so much, one must necessarily place more, if not full, dependence on a study of the objective signs. The more constant symptom is a purulent discharge, unilateral or bilateral. My statistics show pus in both antrae in 17 per cent. of the cases operated on. The discharge is generally simply purulent, seldom mucous or sanguous; is usually of the consistency of cream, sometimes like thickened milk. In chronic cases it may have undergone a caseous degeneration. The odour varies, sometimes being unpleasant to the patient only, and again quite foetid. The pus is usually found in the middle meatus; generally lying on the anterior and inferior part of the middle turbinal, occasionally between it and the septum. When pus is wiped away with a pledget of cotton it can be made to reappear by Bayer's position, or by pressure on the facial wall of the maxillary sinus.

The above-mentioned objective phenomena, with the possible exception of that obtained by Bayer's position, however, are common to all diseases of the frontal and anterior ethmoidal sinuses. The foetid odour of the purulent discharge, although more or less characteristic, may be common to that of rhinitis atrophica, rhinitis caseosa, rhinitis syphilitica, hyper-secretion of the naso-pharyngeal lymphoid tissue, caries, necrosis, rhinoliths, foreign bodies, and neoplasms involving the nasal and

accessory cavities. One can differentiate it without much difficulty from the musty, sepulchral odour of atrophic necrosis. In the presence of vague or ill-defined symptoms, the absence of the classical symptoms of distension, and perhaps the purulent discharge in the so-called cases of latent empyema, we must resort to one or all of the following methods to diagnosticate the pathological conditions of the maxillary sinus, viz.:—first, transillumination; second, sounding; third, irrigation; fourth, exploratory puncture. The method of transillumination, which we owe to the erudition of Voltolini, is a ready and quite reliable diagnostic measure in antral disease. It is painless of application, is not repellent to the patient, and as a matter of routine has found favour with rhinologists as a preliminary step to the more thorough surgical methods of exploratory puncture. Although the method of transillumination has proved a disappointment and embarrassment to some, yet it has been found a most useful means in the diagnosis, not only of diseases of the maxillary sinus, but of the ethmoidal and frontal sinuses as well. Although usually a rosy red light suffuses the cheek in transillumination, the diagnostic point of greatest value rests on the pupillary, sub-orbital and intra-nasal appearances.

It is now an accepted fact that the normal tissues in the naso-maxillary region, both in the young and old, are diaphanous, and when they become thickened or infiltrated as a result of inflammatory or other pathological processes the rays of light are not transmitted and umbrae result. In antral disease, therefore, the real cause of the umbrae is more likely to be the infiltration and thickened mucosa, and not necessarily the presence of pus, particularly if the latter be thin. Every sclerosed area of lupus, and infiltration or thickening of the mucosa of the ethmoidal and frontal sinuses, as well as hyperplasia of the middle turbinal, will develop intra-nasal shadows.

Gouguenheim said that transillumination was embarrassing, because it did not resolve the doubt, for on finding a beautiful sub-orbital umbra, and thereupon opening the maxillary sinus, he found no pus. The presence of an umbra, therefore, is no decided indication of pus, but it may be a positive sign of some pathological condition of the antral mucosa. Robertson found that on opening an antrum containing much pus, and which had been a decided and unequivocal umbra on transillumination, after thorough irrigation, gave the same umbra as before. This observation I have repeatedly confirmed.

We sometimes meet with cases of atrophic rhinitis in which slight and occasional pain is complained of over one or the other of the maxillary sinuses, and in which crusts form more abundantly on one side in the upper portion of the nose, near the hiatus semilunare. When these crusts are removed we occasionally see a small quantity of muco-pus, which from its location is thoroughly suggestive of having its origin in the maxillary sinus or anterior ethmoidal cells. I examined one such case with the electric light, and found a well-marked sub-orbital umbra. I opened the sinus by my method, and was very much surprised on finding no pus. The irrigation, however, gave her so much relief that it was repeated every second or third day for three weeks, when the intra-nasal symptoms had ameliorated so much that the openings were

allowed to close. Her condition improved rapidly, and her visits were discontinued in a few more weeks, with an apparent cure.

Since then I have opened the antrae of several patients suffering from a collapse of the inferior turbinals, and formation of thick, foul-smelling crusts, mostly on one side, in all of whom transilluminations showed a sub-orbital umbra, and, on exploratory puncture, no pus was found. In each case the perforation and thorough irrigation gave much relief, and progressed rapidly towards a cure. I have not had the opportunity of opening and exploring the maxillary sinus, as Robertson has done. I believe, however, he has struck a keynote in the pathology of antral disease, and that there exists some correlation between ozaena and antral disease, the exact nature of which I am not prepared to state at present.

In the light of these disclosures the method of transillumination, although not as important a means for diagnostic purposes as was believed by the sanguine Voltolini and Heryng, yet it will not be difficult to convince the more sceptical of its greater value in the diagnosis as well as prognosis of diseases of all the accessory cavities of the nose—the sphenoidal, perhaps, excepted.

These facts do not detract from the value of the measure, since the return to normal illumination in the same case, after treatment, is a ready means of determining the process of repair, and a return of the tissues to their normal transparency. It therefore becomes a most important prognostic and supplementary procedure to proper surgical treatment. Since you are familiar with the *technique* of the method of transillumination, I will call attention to what I believe to be the requisites for a successful application of the same, viz., first, absolutely dark room; second, sufficient light; third, removal of dental plate. The second method, that of sounding, is far from proving satisfactory on account of the anatomical relation of the ostium maxillare to the nasal cavity. It is a decidedly difficult operation, and, according to Schech, succeeds in about 33 per cent. of the cases. If the attempt proves successful, the presence of pus or caries may be determined. The third method, by *irrigation*, is equally difficult as the foregoing. Moldenhauer states that, by means of a syringe with a properly curved nozzle, fluid may be injected not only into, but against the ostium, finding its way into the cavities, displacing pus when present.

In the paper before referred to, which I read before the Illinois State Medical Association on May 9th, 1890, I described my method of using peroxide of hydrogen, which enabled me to satisfactorily differentiate between empyema of the maxillary sinus and other sources of pus discharging into the nose.

My method is as follows: having thoroughly cleansed the nose and cocainized the nasal mucosa—especially of the middle and inferior turbinals—with a small hypodermic syringe having a long silver canula, bent within a quarter of an inch from the distal end to nearly a right angle, is passed into the semilunar hiatus, and a solution of peroxide of hydrogen (one part to twelve of water) is injected into the antrum. If pus is present it is displaced, and fills the nose with a white foam. That the solution has entered the sinus will be made evident by the patient

complaining of slight pain at the roots of the teeth, and a sense of fulness of the cheek. I know of no test so simple, free from danger, and easy of application, if the mucous membrane of the turbinals is thoroughly collapsed by cocaine.

The fourth method of exploratory puncture may be performed by perforating the outer wall of the nose in the lower meatus, using the stylet of Mickulicz, the trocar of Krause, the trephine of Tornwaldt, the fine trocar and canula of Lichtwitz, the aspirating syringe of Luc, or by perforation of the alveolus in the absence of or on the removal of a tooth (which latter method I will not again mention only to condemn), perforation of the alveolar apophysis, or perforation of the wall of the maxillary sinus in the canine fossa, large enough to admit of digital exploration. By the above methods of exploratory puncture we can determine positively the presence of pus, providing there are no anomalous ridges or septa, which, according to Berger and Tyrman, may divide the sinus into separate compartments.

By the last method, however, which permits of a thorough exploration by the finger as well as an electric light searcher, we can determine positively the exact pathological conditions that obtain, and supplement the same by the proper surgical treatment.

Puncture of the outer wall of the nose, by way of the meatus, has been the favourite method of Mickulicz, Lichtwitz and their followers. If made for diagnostic purposes only, barring the danger of breaking the trocar or needle, and the difficulty of the procedure on account of abnormalities of the inferior turbinal and septum, I see no objection to the method. For therapeutic purposes, however, I believe that the outer wall of the nose is a most undesirable location, for the following reasons : first, the opening does not enter the most dependent part, but from four to eight millimetres above the level of the sinus. Second, that drainage therefore cannot be perfect ; third, that the mucous membrane will close the aperture in a few hours after the puncture, and that consequently at each treatment it will be necessary to search for the previous opening, or of necessity make a new one, a procedure which would be objected to by most patients. Hence, if we are to medicate or irrigate through the nose, I much prefer to do it by the natural ostium maxillare. Some writers still advocate extracting a sound tooth and perforating the alveolus from below with a drill, in the absence of the second bicuspid or first molar. Unless the perforation is made at the most dependent part, instead of at the apex of a conical eminence corresponding to the roots of the teeth, the desired object is not attained. Again, the food is much more apt, especially during mastication, to find its way into the sinus, and may prove a source of irritation and cause of persistent suppuration. I much prefer making the perforation at the alveolar apophysis. The drill enters the antrum at its most dependent part, and the cheek will cover the opening or drainage tube that I generally insert, and will prevent food from entering the sinus.

The essential feature of the treatment of diseases of the maxillary sinus, more especially when the presence of pus has been established,

consists in opening the cavity for proper drainage, thorough irrigation, and disinfection. Any other plan involves a long and tedious course of treatment, with exceedingly doubtful results.

My method of exploratory puncture, which serves for diagnostic as well as therapeutic purposes, is that of perforating the alveolar apophysis. The mucous membrane having been cocainized by the local application or submucous injection of a ten per cent. solution of cocaine muriate, a circular piece of mucous membrane is cut out with a tubular knife, below the gingivo-labial fold, between the roots of the second bicuspid and first molar. A drill worked by an electric motor is directed upward, inward and backward at an angle of about forty-five degrees with the plane of the alveolus, the drill entering the sinus at its most dependent part. The opening thus made can be enlarged by a burr of a sufficient diameter to admit of thorough irrigation and disinfection. A gold drainage tube must be so fitted that the distal end will enter just within the sinus, while to the proximal end is properly fitted a collar or clasp, by which it is made fast to a tooth, thus holding it securely in place.

The after treatment consists in daily irrigation of the cavity with an antiseptic solution (preferably a saturated solution of boric acid), and followed by the insufflation of iodoform, iodol, aristol, or europhen.

In cases where suppuration persists beyond a reasonable time, I enlarge the opening by a trephine or tubular knife, and explore the cavity with a probe. If there is much thickening of the mucosa, or the exploration discloses caseous pus, I curette thoroughly, following it by irrigation, and packing with iodoform gauze for twenty-four hours, which is then removed, and, after irrigation, one of the above powders (preferably the europhen and iodol mixed) is insufflated, and repeated every second day. I am quite favourably impressed with the method of Robertson, of perforating the anterior wall of the maxillary sinus in the canine fossa, of sufficient size to make a digital exploration, and to use an electric light searcher.

Since it seems desirable, in those chronic cases of persistent suppuration, to thoroughly explore the maxillary sinus, the above radical measure will meet the approval of many, because we are thereby enabled to submit the entire field of operation to a searching examination and effective surgical treatment.

34E, Washington Street, Chicago.

ANNOTATION.

ACROMEGALY.

As the name proposed by Pierre Marie, who only so recently as 1886 first clearly isolated the disease, indicates—(*άκρα*, end; *μεγάλη*, big)—acromegaly is characterized by enormous increase in size of the extremities of the body. The hands and feet undergo a remarkable hypertrophy, which, in the majority of cases, is also well marked in the case of the

nose and ears. Another prominent feature is a marked increase in size of the fibro-cartilages of the eyelids, nose, ear, larynx, and epiglottis. To the increase in size of the bones of the face, more especially of the superior and inferior maxillæ, is due the elongated ellipse the features assume in fully-developed instances. The air sinuses of these bones are always more or less enlarged, and contribute towards giving a broader appearance to the face than normal. The hypertrophy in some regions, e.g., the hands and feet, is not alone confined to the skeletal parts, but is demonstrated in all the tissues of the part, both soft and osseous.

The most consistent accompaniment of these external manifestations, whether of a pathological nature has yet to be determined, is a marked enlargement of the pituitary body associated with a corresponding depression or excavation in the sella turcica.

Such is true for the greater number of cases of the disease where *post-mortem* investigation has been attainable. It may be interesting to note that in a case of well-established acromegaly recently under the care of Dr. Craggs, of the Newcastle-on-Tyne workhouse, the *post-mortem* examination revealed a tumour of the pituitary as large as a green walnut.

It cannot be admitted, however, that up to the present this association of enlarged pituitary and acromegaly aids much in the elucidation of the strange condition, for, as recent literature shows, enlarged pituitary has been observed besides in myxoœdema (Noyes and Beadles), cretinism, and cachexia thyreopriva. Enlarged pituitaries, again, have been observed without any of the appearances of acromegaly.

The division of the pituitary gland invariably found to be affected is the anterior or glandular portion (in structure and function similar to that of the thyroid), which is developed from the buccal cavity, and it is interesting in this connection to observe that in acromegaly the posterior parts of the mouth, the tonsils, palate, uvula, pillars of the fauces, and oro-pharyngeal mucosa are enlarged, the latter being in some cases thrown up in folds. It ought to be remarked that the several lesions of the pituitary resemble closely those observed in the thyroid. Briefly the microscope shows the gland acini of the hypertrophied pituitary dilated, and the colloid matter increased inside as well as outside the acini. The condition of the thyroid is for the most part that of atrophy as in myxoœdema. Apart from the condition of the pituitary and thyroid, the pathological anatomy of acromegaly consists in hypertrophy of all the structures of the part. The sheaths of the peripheral nerves are affected, and in the bones a new formation of osseous tissue takes place. The hypertrophy of the tongue is due to an increase of the connective tissue and individual muscle bundles. The sympathetic ganglia in the neck are degenerated, in the atrophied thyroid cystic and enlarged follicles are observed, while the nasal mucosa is infiltrated. Another feature in acromegaly dwelt upon by certain authors, but less accentuated by many, is an enlargement of the thymus evidenced clinically by a triangular dulness at the upper part of the sternum.

Frequently the appetite for food and drink is large, while the quantity of urine passed is increased. Polyuria and diabetes are frequently observed phenomena in subjects of the disease. Profuse sweating and

headache are frequent symptoms. Age and sex betray little effect on its incidence, while it would seem to affect blacks as well as Europeans. Premature cessation of the menses is often associated with its commencement in women, while in males injuries, accidents, alcoholism, etc., are often precursors of its development, which is often rapid, and at first referred to swellings of the hands and feet, which are sore and sensitive to the touch.

The skeletal changes present in acromegaly are summarized as follows by Thomson ("Journ. Ata. and Phys.")

1. Changes peculiar to acromegaly, an enlargement of the pituitary fossa and disproportionate development of the bones of the face, dilatation of air sinuses, hypertrophy of cranium clavicles, and enlargement of temporo-maxillary articulation.

2. Changes resulting from a tendency to the formation of new bone, both in normal and abnormal sites, thus approaching in character osteoarthritis. Thus tendons, ligaments, costal and other cartilages become ossified.

Inter alia, the external orifice of the external auditory meatus has been found considerably enlarged, rendering the canal funnel-shaped or conical with the apex at the membrana tympani.

From even a cursory review and consideration of all that has been said and written about this most anomalous vagary of nutrition, it is only too evident that but half the picture of the disease is yet visible. It naturally follows from the fact of the increasing number of necropsies showing enlarged pituitary bodies that some connection of the nature of cause and effect should be thought of. To this opinion Dr. Marie inclines, and points out that there is a tendency to abnormal development in the osseous system analogous to primary progressive myopathy. In the alterations in the hypophysis and thyroid, and perhaps also in the persistence and hyperplasia of the thymus, may yet be found the mystery of its causation.

The "internal secretions" of these organs (blood glands) exercise an important function in the economy. Abolish the function of the thyroid, and myxoedema results. In the case of the pancreas, if this is destroyed pancreatic diabetes supervenes : while if the supra-renals are destroyed a motor paralysis sets in of a nature similar to that affected by curarl. The presence of enlarged hypophysis in myxoedema, where the osseous system is never affected, somewhat affects detrimentally the theory that would attribute the causation of acromegaly to some chemical substance acting on the tissues as an irritant, its presence being accounted for by the deficiency or entire absence of the internal secretion of one or other of the blood glands mentioned (hypophysis, thyroid, thymus). Whatever the cause, undue stimulation of nutrition is effected, the excess of this particular function being observed almost in every tissue, in the connective more especially, as witnessed in the osseous system.

Detailed descriptions of the symptoms of acromegaly, as displayed in its early stages, are wanting. Just as the symptoms impress the patient he may consult the aurist or the laryngologist, and so on. A reference therefore to the subject in these columns may serve to awaken interest in the matter.

DIPHTHERIA, THERAPEUTICS, &c.

Killian (Freiburg).—*New Cocaine Insufflator for the Nose, Pharynx and Larynx.*
“Therap. Monats.,” 1893, No. 2.

A MODIFICATION of the ordinary instrument. *Michael.*

Neumann (Buda-Pesth).—*Antipyrin as a Local Anesthetic in the Pharynx and Larynx.* “Pester Med. Chir. Presse,” 1893, No. 3.

THE author has applied this drug by insufflation in a powder of fifty per cent. with fifty per cent. amyłum in cases of ulcerative phthisis of the larynx and pharynx with excellent analgesic results. *Michael.*

Rice, C. C.—*The Value of Sprays in the Treatment of Catarrhal Affections of the Upper Air Passages.* “New York Med. Journ.,” Jan. 21, 1893.

TREATMENT by sprays has always maintained a prominent position. The various petroleum products—liquid vaseline, alboline, benzoniol, glymol, lanolin, &c.—have crowded out of use many of the old astringent drugs, and beneficially. The most erroneous use ever made of sprays has been the spraying of vegetable and mineral astringents into the anterior nares for the cure of hypertrophic rhinitis. Solutions of one-half of the strength usually indicated in text-books would cause acute coryza, purulent disease of the accessory cavities, and otitis media. In simple and hypertrophic nasal catarrh no drugs with astringent action should be sprayed. Oily sprays are indicated in these conditions, with cocaine, iodoform, aristol, oil of pine, menthol, thymol, resorcin, &c. They stimulate, according to the temperature and force of injection. Their prolonged use tends to increased dryness. They are specially indicated in cases where obstruction is not great and congestion is considerable, and may replace operation.

Watery astringent solutions, though harmful in the anterior nares when not far advanced in disease, are of service in atrophic rhinitis. Peroxide of hydrogen (ten to twenty per cent.), mercuric bichloride (1 to 4000), boric acid, potassium permanganate, and carbolic acid often not only disinfect but stop purulent discharges; but they should always be employed with the uptip spray tube directed towards the back of the pharynx and post-nasal spray, and the patient should be taught how to use them. A mild alkaline, stimulating, disinfecting solution, used in this manner three times a day, is the best treatment yet devised. Mild astringents, two or three grains to the ounce, of silver, copper, zinc, tannic acid, or iron may be used in this manner with benefit.

Sprays are beneficial or harmful according to the manner in which they are used. The exact strength and pressure should be carefully regulated to the part. Very mild solutions of cocaine—less than one per cent.—are as useful astringents as can be employed, and, as a sedative, cocaine solutions have entirely supplanted opium, morphine, bromides, and aconite.

The group of stimulating disinfectants, such as listerine, thymol,

menthol, eucalyptol, oil of wintergreen, &c., cleanse and comfort dry, congested surfaces.

Sprays should not be used cold, and a pressure of fifteen pounds is sufficient for the anterior nares, twenty-five pounds for the posterior nares, and twenty-five to thirty pounds for the lower pharynx and larynx. The treatment of catarrhal affections of the upper air passages by atomized fluids will not lapse into disuse to-day, nor render surgical treatment unnecessary, but combinations of cocaine, menthol, &c., in oily vehicles will diminish the number of nasal operations.

In the discussion following the reading of this paper at the American Laryngological Association—

Dr. SWAIN thought that the post-nasal spray, though of the greatest use, was difficult of application by the patient. Even children can project the solution through the naso-pharynx, and even nares, by gargling.

Dr. BOSWORTH supposed that we had now done with sprays, and did not believe they accomplished any practical good. He does not believe that astringents are of any use, or that we meet with any disease in the nasal passages calling for their use. There is no such disease as catarrh, and hyper-secretion is seldom met with. In the vast majority of cases deficient secretion exists. He excepts naso-pharyngitis, but really knows little about it. We do not know the sources of naso-pharyngeal secretion, and only carry out cleansing. The best method of doing that is not the spray. Directed behind the palate, it will not reach the parts, and most patients will not tolerate it. He unhesitatingly places the post-nasal douche in the hands of his patients, and teaches them how to use it. Astringents are not often indicated, and oily solutions are only adjuvants, and not curative. Cocaine is not an astringent, and, though formerly enthusiastic about it, he has abandoned its use.

Dr. WRIGHT agreed that the dirtiest place in the naso-pharyngeal tract is the vault, and cleansing should be directed to that part. But the patient cannot do it with the naso-pharyngeal spray. He almost entirely uses the post-nasal syringe. Oily solutions are greatly over-valued. He never succeeded, upon himself or his patients, in getting any fluid into the nose through Dr. Swain's method of gargling without much choking and discomfort.

Dr. ASCH thought we could neither depend entirely upon sprays nor abolish them. They are not curative, but are immensely valuable as palliative and cleansing means. Nothing is so valuable in the naso-pharynx as the spray. Astringents are very valuable in catarrhal cases. He agreed with Dr. Bosworth that the douche was valuable, but dangerous.

Dr. MACKENZIE thought that Dr. Bosworth's "rivulet of common sense meanders through a pretty big meadow of incautious observation." He would be sorry to see such views as he entertains go unchallenged by that Association. He cautioned against the use of too much oily solution. They tend to beget a condition of dryness by prolonged use. He thought that the injudicious use of cocaine was greatly to be deprecated, did not estimate Dr. Swain's method of gargling very highly, and rarely recommended the post-nasal syringe, as he knew of cases where acute otitis media had followed its use.

Dr. SWAIN defended his method.

Dr. DELAVAN championed Dr. Rice, and still found a use for the spray, and still had faith in the treatment of certain morbid conditions of the nose and throat by therapeutic means. He thought that the limitations of the vaseline products were sometimes forgotten. They stood at one end of the list, and lanolin at the other. The former, not being readily absorbed, acted mechanically. As to the

temperature, it is lowered by the process of atomization. He was certain that most members of the Association would still use the spray.

Dr. WRIGHT had seen no bad results from the post-nasal syringe, but the patient should be cautioned not to blow the nose while compressing the alæ, for in this manner fluid might be driven up the Eustachian tube.

Dr. BOSWORTH did not wish to be misunderstood. The spray is the best way to cleanse the nose, but it does not reduce hyperæmia, relieve hypertrophy, or cure catarrh, whatever that may be. He repeated that there was no such disease as catarrh, and most so-called catarrhal conditions in the nose are attended by deficient secretion. The nose secretes in twenty-four hours sixteen to eighteen ounces of serum and mucus. Take away half the water by a hypertrophic rhinitis, and the thicker part will remain, give rise to trouble, and cause an apparent excess of secretion.

Dr. ASCI inquiryed if there was hyper-secretion or deficient secretion in the condition where the patient wetted five or six handkerchiefs in a day?

Dr. BOSWORTH replied that if hay fever were meant, there might be hyper-secretion, but this consists largely of serous exosmosis from the venous sinuses, and not of mucous secretion. He did not believe that the Schneiderian membrane is often met with in a condition in which there is hyper-secretion.

Dr. MACKENZIE enquired whether there were not glands in the Schneiderian membrane? to which Dr. BOSWORTH replied comparatively few, if muciparous glands were referred to.

Dr. RICE contended that it will be an unfortunate day when all sprays are laid aside as useless, and thought that Dr. Bosworth's objections had been fully answered.

R. Norris Wolfenden.

Brück (Buda-Pesth).—*Intubation in Severe Laryngo-Spasm.* “Pester Med. Chir. Presse,” 1892, No. 30.

A CHILD, eleven months old, had severe attacks of laryngo-spasm, which produced asphyxia three times in one day. The author introduced an O'Dwyer tube, which remained in the larynx sixteen and a half hours. From this time only some slight attacks followed. The author recommends the method for severe cases.

Michael.

Taub (Buda-Pesth).—*Intubation in Whooping Cough.* “Pester Med. Chir. Presse,” 1893, No. 11.

THE author recommends this treatment in cases of whooping cough, and has applied it in some cases with good results. [The reporter believes that it is useless.]

Michael.

Rosenberg.—*On Intubation.* Verein für Innere Medicin in Berlin. Meeting, Feb. 28, 1893.

THE author reports upon the results obtained with this method in the policlinic of the University. (1) A case of diphtheritic stenosis was cured in five days. (2) In a case of glottic spasm the tube was introduced to diminish the force of the constrictors of the glottis. One time an attack of suffocation made tracheotomy necessary, but for removal of the canula intubation was applied, although, up to now, without effect. (3) A case of chronic stenosis, cured by intubation in five days. In this case sudden suffocation had made tracheotomy necessary. Around the tracheotomy

wound arose granulations, which produced a stenosis, and which have been removed by the tube. (4) In a case of hypertrophic laryngeal phthisis, producing stenosis of the glottis, respiration became free after treatment with intubation. (5) In a case of diffuse papilloma of the larynx the dyspnoea was removed by intubation; afterwards the neoplasms were operated upon. (6) In a case of perichondritis tuberculosa, which was tracheotomized, intubation has been employed to remove the tracheal canula. (7) Membrane between the vocal cords was operated upon by the galvano-cautery, and intubation afterwards employed to prevent new formation of the membrane.

EWALD, SCHWALBE, and HERZFELD made some remarks upon the *technique* of the method.

Michael.

Engelmann, Rosa.—*Some interesting points in connection with a Case of Diphtheria and Scarlatina.* “Arch. of Pediatrics,” April, 1893.

THE points were—

1. Unusual priority of the diphtheritic to the scarlatinal infection (four days), the mother being affected in the interval.

2. The likeness, if not the identity, of the streptococcus causing scarlatinal pharyngitis and that causing erysipelas, as indicated by the source of the father's infection. (Seven days after the appearance of the scarlatinal rash on the child, the father who had nursed him developed erysipelas of the face.)

3. The child developed pneumonia, probably a “Schluck” pneumonia, due to the use of hydrogen peroxide, as a pharyngeal and nasal spray, to counteract the ptysis produced by pushing mercurial treatment.

4. The otitis media which occurred was probably diphtheritic in character, since it has been, and still is, very resistant to care and treatment.

R. Norris Wolfenden.

Fraenkel, C. (Marburg).—*On the Diphtheria Bacillus.* “Berliner Klin. Woch.,” 1893.

IN cases of true diphtheria virulent and slight Loeffler's bacilli are found. The latter also are found in cases which are not diphtheria and also in healthy mouths. Both forms are identical, but in cases of true diphtheria the bacilli are found in great masses.

Michael.

Escherich (Graz).—*Local Treatment of Pharyngeal Diphtheria.* “Wiener Klin. Woch.,” 1893, Nos. 7, 8, 9, 10, 11.

AN extensive article recommending local treatment with sublimate.

Michael.

Neumann (Berlin).—*Treatment of Diphtheria.* Berlin: Fischer. 11 pp.

REPRINT of the author's paper published in the “Archiv für Kinderheilkunde” (*vide* the report in this Journal).

Michael.

Spengler (Heidelberg).—*Experiences of the Effects of Alumol and Diapherin.* “Munchener Med. Woch.,” 1893, No. 13.

THE application of the new drugs has been followed by good results in pharyngitis and ozaena.

Michael.

Cassel (Berlin).—*Treatment of Whooping Cough by Bromoform.* “Deutsche Med. Woch.,” 1892, No. 5.

THE author has treated a great many cases with the drug, and is satisfied with the results.

Michael.

Nolden (Cologne).—*Two Cases of Bromoform Intoxication, with Remarks on the Treatment of Whooping Cough.* “Therap. Monats,” 1893, No. 5.

(1) A PATIENT, two and a half years old, having taken four grms. of bromoform, became severely syncopic, with anaesthesia, absence of reflexes, pulse of 150, and tracheal rhonchi. Cure was obtained by warm cataplasms and ether injection. During the syncope the patient had three severe attacks of whooping cough. (2) A girl, three years old, having taken six grms. of bromoform, became asphyctic, with severe cyanosis, cessation of pulse and respiration. Cure was obtained by artificial respiration. The drug is very dangerous, and must be applied with great caution.

Michael.

MOUTH, TONGUE, OESOPHAGUS.

Bulkley, L. D.—*Two Cases of Chancre of the Lip in little Children.* “Arch. of Pediatrics,” April, 1893.

IN one case the infection was probably got from another child who had a sore mouth. The little patient was only three years and ten months old. In the other case, that of a girl of four and a half years of age, the source of infection was undoubtedly the mother, either by kissing or some mediate object.

R. Norris Wolfenden.

Cadell (Edinburgh).—*Accidental Revaccination on the Upper Lip simulating Chancre.* “Brit. Med. Journ.,” Mar. 18, 1893.

IN a mother, who became accidentally vaccinated on the skin of the upper lip to the right of the middle line, the lip was much swollen, and the sore, the size of a threepenny piece, was devoid of the appearance of a vaccine vesicle. The surrounding skin was red and painful. Three glands under the lower jaw were enlarged and painful.

The author says that it was not syphilitic because (1) the sore was painful, (2) there was more inflammatory oedema than in chancre, (3) the glands though knotty were painful, and (4) the scab was thicker than in lues.

[It might have been added that the course was shorter in duration than in chancre of the upper lip, which is notoriously protracted in its course, requiring more energetic treatment than syphilides in any other situation in the body.]

The following note of a case of chancre of the upper lip shows the features distinctly. It occurred in a young girl who had been nursing a sister's child who was suffering from snuffles and syphilitic cachexia at the time. The chancre occupied the upper lip towards the left of the middle line (an important point). It had the superficies of a shilling

almost, slightly concave, the surface being dry and dark in colour. To the touch it was as hard as cartilage, which hard feeling appeared to extend four millimetres deep. The chancre had existed for four months, rebellious to treatment. When the patient came under me I injected cocaine, and removed all I could with a dermal curette, and then pierced the remaining induration with a galvano-cautery point in various directions. In addition a calomel and zinc dusting powder was used, together with mercury and the iodide internally. In two weeks' time the chancre was barely noticeable.—*ABSTRACTOR.*]

Wm. Robertson.

Cousins, John Ward (Portsmouth).—*Cancerum Oris, followed by Extensive Ulceration of the Cheek and Ankylosis of the Jaw—Recovery.*

IN this case, a boy aged ten, extensive ulceration of the right cheek followed an attack of typhoid fever. The perforation of the cheek was as large as a crown piece, exposing the teeth. The dense cicatricial tissue bound the maxilla firmly together, and the buccal cavity was completely obliterated, the child being fed through a gap between the teeth. The lower jaw was divided to make a false joint, and, the adhering edges of the fistula being freed, contraction steadily advanced until the perforation closed.

Wm. Robertson.

Bernhardt (Berlin).—*On some less known Neuroses of the Mouth and Tongue.*
“Neurolog. Centralbl.,” 1893.

DESCRIPTION of four cases of painful sensations of the tongue, very disagreeable to the patients, who were not hypochondriac, but believed that they had cancer. All therapeutic efforts were without effect. *Michael.*

McCulloch, A. (Taporley).—*Idiopathic Inflammation of the Tongue.* “*Brit. Med. Journ.,*” Mar. 25, 1893.

THE author advocates the abstraction of blood (cupping), free purgation, and the iodide in preference to excision of the organ, and points out that this procedure might have been effective in the boy's case (*vide infra*), where he considers the excision of the fore part of the tongue was too heroic.

Wm. Robertson.

Leah (Devonport), reported by Morris.—*Case of Macroglossia.* “*Brit. Med. Journ.,*” Mar. 18, 1893.

THE case occurred in a boy aged five, who, when two years old, was tapped for ranula. From birth he suffered from some indefinite thickening under his tongue. Subsequent to the treatment of the ranula, which caused inflammation of the tongue, a thickening remained. Speech was defective. The tongue was more than twice its normal dimensions when he was admitted. Mercury and iodide had been given, there being a history of lues in his father, but without success. The tongue protruded three inches beyond the lips; he could retract it to within half an inch of these, which could not overlap it. The surface was covered with crusts, and the lower teeth were everted from the weight of the organ lying on them. There was little pain or inconvenience, the boy being able to eat solid food. A wedge-shaped piece of the tongue was removed. Speech was afterwards much improved.

Wm. Robertson.

Colin, Albert.—*On Mycosis Leptocephilia.* Thèse. Paris, 1893.

At the termination of an interesting monograph upon this subject the author comes to the following conclusions:—

1. Mycosis is a comparatively rare affection, seldom diagnosed, and very little known.

2. It is caused by the production and accumulation of filaments of the leptocephilia, which form upon the tonsils, the base of the tongue, and the posterior wall of the pharynx whitish-yellow resistant and pointed patches, which have a marked tendency to form clusters, which assume the appearance of cocks'-combs or smooth plaques of the same colour.

3. The filaments of the leptocephilia are implanted in the epithelial layer.

4. Nothing precise is known as to the origin of the affection.

5. Mycosis has an essentially chronic course, and has frequent recurrences. It can in certain cases be reproduced by inoculation.

6. Though in itself of benign prognosis, the influence which it exerts upon the *morale* of the patients and its slight tendency to spontaneous cure merit the attention of the practitioner.

7. The best treatment is ablation (as complete as possible) of the leptocephilia productions and swabbing with an iodated iodine solution alone or associated with chloride of zinc. The smoking of tobacco is also advised.

One patient was advised to smoke twelve cigarettes daily, and in fifteen days presented marked amelioration. A case of Heryng's is referred to where the smoking of cigars in three months cured a condition which was rebellious to all treatment. The differential diagnosis from lacunar tonsillitis consists, according to Ruault, in the fact that the small white and pointed accumulations of leptocephilia, or the smooth or flattened plates of the same colour, are situated between the cryptic orifices on the surface of the gland, to which they adhere strongly, and nearly always exist at the same time on the base of the tongue and the pharyngeal wall. The mode of appearance, more marked adherence, and long duration without acute symptoms, local or general reaction, distinguish mycotic patches from diphtheria.

The microscopic sections were examined by Prof. Cornil.

The white opaque layer is formed of superficial epithelial cells filled with micro-organisms, and serving as a point of departure for the vegetations of leptocephilia. Some of the leptocephilia masses are transformed into thin discs. The uppermost cells of the epithelial layer, which are completely filled with round microbes, alone give origin to the leptocephilia long filaments—deeper the epithelial cells get necrosed. The connective tissue of the mucous membrane is not markedly inflamed, and the leptocephilia does not penetrate deeply. The chorion is filled with round cells, and in the closed follicles and connective tissue there are numerous granular cells.

In the uppermost layers cornified epithelial cells are found in layers of leptocephilia.

R. Norris Wolfenden.

Mules (Manchester).—*Rheumati: Tonsillitis.* “Brit. Med. Journ.” Mar. 18, 1893.

THE author read a paper on acute tonsillitis in its relation to rheumatism, illustrated by clinical notes. The treatment was full doses of tr. ferri. perchlor. every two hours until all symptoms had subsided. Wine was given to adults, and all exposure to chill avoided. Since adopting this treatment Dr. Mules has never met with rheumatic sequelæ.

Wm. Robertson.

Johnson, Raymond (London).—*Lympho-Sarcoma of the Tonsil.* “Brit. Med. Journ.” Mar. 18, 1893.

IN a female aged fifty-three, whose symptoms were of six months' duration. The growth, which occupied the left tonsil, was oval in shape, and measured one and a half inches by seven-eighths of an inch : its surface was covered by short papillary processes. A mass of soft glands was situated behind and below the angle of the jaw, and other smaller glands lay along the posterior border of the sterno-mastoid. An incision was made from the lobule of the ear to the level of the hyoid bone, and from it an incision was carried to the extent of one inch along the anterior border of the sterno-mastoid. The mass of glands was easily dissected out, and then a silk ligature was applied to the external carotid artery below the origin of the lingual. The lateral wall of the pharynx was next freely exposed, and the primary growth was excised together with a margin of healthy tissue around it by means of scissors. The haemorrhage was trivial. No attempt was made to close the pharynx wound, the skin being sutured with silk and drained at the lower part of the wound. Rectal feeding was adopted for two days after operation. Later, the enlarged glands at the posterior border of the sterno-mastoid were excised, as also a small one beneath the scar. There was no recurrence in the pharynx nine months after, but there were some slightly enlarged glands in both sides of the neck. The author pointed out that the operation resembled that used by Cheever and Golding Bird, and that the ligature of the carotid, which did not complicate the procedure, was a more satisfactory method of dealing with haemorrhage than preliminary tracheotomy or removal with cautery.

Wm. Robertson.

Mackenzie, Hunter (Edinburgh).—*Tonsillotomy; with an Analysis of Two Hundred and Thirty Cases.* “Brit. Med. Journ.” Mar. 25, 1893.

IN this analysis the author points out that the majority occur between six and ten years ; males in excess—unless at puberty, when females predominate ; that the operation is rare under two years and over fifty years, the small number operated on under two years being due to aversion to operation at that age. In children chronic enlargement was usually present, which at puberty was complicated with periodical acute attacks in the diseased tissue. In infancy and childhood the enlarged tonsils were complicated with respiratory troubles, snoring, etc., deranged health, aerial starvation, and badly-developed chest. Adenoids frequently were associated with enlarged tonsils, as well as purulent rhinitis and post-nasal catarrh. These conditions required suitable treatment. In one

hundred and fifty-seven cases double tonsillotomy was performed ; in seventy-three single tonsillotomy (oftenest left). Dr. Mackenzie is of opinion that most lesions of the tonsils, and of the larynx also, evince a greater tendency to commence on the left side than the right.

Anæsthesia (chloroform) in ages varying from four to thirteen was induced in nine cases.

Ten per cent. cocaine solution was employed in most of the other cases.

Hæmorrhage, profuse or troublesome, never followed the operation. In one case some oozing on the second day was stopped by the pernitrate of iron. Dr. Mackenzie believes that bleeding will not occur if care be taken to leave a clean-cut surface, and no injury happen to the faucial pillars or soft palate. Drinking warm fluids after operation induces bleeding.

Results in children, both local and general, were most beneficial. In two cases only was re-enlargement of tonsils noted. In three adults abscess and inflammation of stumps were noted.

The deafness accompanying enlarged tonsils was not always removed after operation, though in some instances this was remedied by attention to the naso-pharynx.

Wm. Robertson.

Raudnitz (Prague).—*Parenchymatous Injections in Diseases of the Tonsils.*

“Prager Med. Woch.,” 1893, No. 14.

RECOMMENDATION of injections of sublimate.

Michael.

Loewe (Berlin).—*Contribution to Æsophagoscopy.* “Deutsche Med. Woch., 1893, No. 12.

MODIFICATION of Morell Mackenzie’s instrument. The author has applied a cap of soft rubber gum, which can be opened when the instrument is *in situ* to prevent the filling of the instrument. *Michael.*

Taylor, F. W.—*A Case of Congenital Malformation of the Æsophagus.* “Boston Med. and Surg. Journ.” January 19, 1893.

An infant directly after birth had attacks of cyanosis, and arrest of respiration occurring at frequent intervals. On passing a bougie a stricture was located five inches from the nostril. Two days after birth the child died. At the autopsy it was found that just below the level of the cricoid cartilage the trachea and œsophagus were firmly united by connective tissue, and could not be dissected from one another. The upper part of the œsophagus ended in a blind pouch at the union of the trachea and œsophagus. The lower part of the œsophagus had its normal diameter from the stomach upwards to nearly the lower end of the upper part, where it stopped, and communicated anteriorly at its upper limit with the trachea through an opening not more than a line in diameter. Other organs were healthy.

R. Norris Wolfenden.

Mintz (Warsaw).—*Rare Case of Æsophageal Diverticulum.* “Deutsche Med. Woch.,” 1893, No. 10.

A PATIENT, forty-nine years old, for eight years had difficulty in swallowing. The food did not enter the stomach, remaining in the œsophagus, and regurgitated after some time. When the œsophagus was filled with

food the patient complained of pain under the sternum, dyspnoea and oppression. The soft rubber tube did not enter the stomach, but caught in a cavity over the cardia, from which, by irrigation, was removed a great deal of food. The contents of the cavity contained no hydrochloric acid. The bougie could be introduced into the stomach, and this could be illuminated by Heryng's lamp. It was thus proved that there was a true diverticulum of the œsophagus, and not, as was at first believed, a dilatation over a stricture. The treatment consisted in cleansing irrigations of the cavity.

Michael.

Reichmann (Warsaw).—*On Large Diverticula of the lower part of the œsophagus.* “Wiener Klin. Woch.” 1893, No. 11.

ALL diverticula as yet described have been found in the higher parts of the œsophagus. The author has observed the following case of a diverticulum in the lower portion. A patient, forty-two years old, complained that he had compression in the chest after eating, and that he had difficulty in swallowing solid and fluid food. A bougie introduced was obstructed by an impediment in the lower part of the œsophagus, but shortly afterwards it could be introduced four to five inches deeper, and then came into a large space : 500 gr. of fluid food, etc., could be emptied from this space. There could be nothing more, therefore, than a large diverticulum of the œsophagus. The same symptoms were observed by the author in a patient forty-nine years old. Here the examination of the contents of the cavity proved the absence of hydrochloric acid and pepsine, so that it could not be the stomach. In a third case, a patient, forty-four years old, complained that the food when swallowed remained in the under part of the œsophagus : during eating the difficulty ascended, and some time later the patient remarked that the food passed into the stomach. On introducing a bougie it entered a large cavity in the lower part of the œsophagus, examination of the contents of which proved no hydrochloric acid to be present. By a further introduction of the bougie, which entered the stomach, and examination of the contents of the stomach, which gave a normal result, it was proved that in this case a diverticulum of the lower part was also the cause of the patient's troubles. The contents of the diverticulum were 100 grm.

Michael.

Kruger (Warzburg).—*On Retrograde Dilatation of œsophageal Strictures.* “Munchener Med. Woch.” 1893, No. 12.

IN a case of œsophageal carcinoma it was not possible to introduce a bougie through the mouth, and gastrostomy was therefore performed. It was afterwards possible to introduce a thin bougie through the stricture, and a Leyden canula could be introduced, so that it became possible for the patient to eat by the mouth. The stomach wound was closed by sutures. Fourteen days later death occurred from marasmus.

Michael.

Park, Roswell.—*Œsophageal Stricture and Gastrostomy.* “Med. News,” Mar. 18, 1893.

THE patient was a girl of eighteen, who two or three years previously had gastrostomy performed for stricture from drinking hot

lye. After a year the patulousness of the œsophagus was restored by electrolysis and sounds. The œsophagus has had to be twice dilated since, owing to neglect of treatment by the patient. She now returned to have the stomach opened again, stating that she was more comfortable so. Dr. Park, in the course of his remarks, states that he has performed celiotomies and repeated gastrostomy simply under cocaine. The patient eighteen days after the operation was walking about the wards and doing very well, wearing an improved tube in the gastric fistula.

The author makes some remarks upon tubage of the œsophagus, which he evidently does not approve of, and he says "I have not yet seen the case that I thought just fitted for such treatment."

R. Norris Wolfenden.

NOSE AND NASO-PHARYNX.

Wagner (Halle-a-S.). — *Application of Mirrors in Anterior Rhinoscopy.*
"Münchener Med. Woch." 1893, No. 10.

THE author introduces the mirrors used for posterior rhinoscopy into the vestibulum nasi, and can see the under portions of the atrium nasi. If the turbinateds are swollen he diminishes their circumference by cocaine.

Michael.

Shield, Marmaduke. — *Some Common Affections of the Nose.* "The Practitioner," April, 1893.

FOR the proper examination of the nasal cavities, a good light, a mirror, and a suitable speculum are required. Thorough cleansing of the nasal passages, by means of alkaline and antiseptic lotions, is frequently required to remove crusts and inspissated secretions. For posterior rhinoscopy a small mirror bent at a suitable angle is required. The palate may or may not have to be drawn forward by means of hooks, etc. The point of the index finger gently insinuated behind the soft palate will often give more information to the surgeon than the most painstaking examination with the post-rhinal mirror.

In advanced cases of hypertrophic rhinitis the author uses the galvano-cautery or chromic acid fused upon the end of a probe to cauterize the redundant tissue. For posterior hypertrophies he uses the steel wire loop, and subsequent applications of chromic acid.

In atrophic rhinitis the persistent use of alkaline and antiseptic solutions is required. Iodoform or iodol makes a good subsequent application. Packing the nostrils for a short time daily with pledgets of wool, powdered with antiseptic powders or impregnated with antiseptic solutions, gives relief in some cases.

In ozæna it is important to make sure that no foreign body exists in the nasal passages.

In the treatment of ordinary nasal polypi the author uses the cold wire snare for their removal, and subsequent applications of chromic

acid or a galvano-cautery point. He strongly condemns the "haphazard" method of introducing a pair of forceps into the nose, and pulling away everything the forceps grasps.

W. Milligan.

Heymann, F. (Berlin).—*Habits in Nasal Disease.* "Deutsche Med. Zeit," 1893, No. 26.

HEADACHE can be produced by nasal diseases (1) by irradiation, (2) by false localization, (3) by reflex neuroses, (4) by compression of the vessels of the nose. From the existence of such various causes it is natural that many diseases of the nose become capable of producing headache.

Michael.

Macdonald, Greville.—*On Purgatives in Hay Fever.* "The Practitioner," April, 1893.

THE most unsatisfactory cases to treat are those in which no objective disease or malformation of the nasal fossæ can be detected, and conversely the greater the amount of objective mischief the greater the likelihood of benefit following treatment. A favourable condition is where ecchondrosis or exostosis of the septum, or where hypertrophy of the inferior turbinated body is present. Operative interference in these cases frequently proves very beneficial. The treatment of acutely hyperæsthetic tumefactions of the mucous membrane covering the septum also gives good results. The treatment of vascular engorgement of the inferior turbinated body, although not so satisfactory, still affords justification for encouragement.

True polypi are seldom met with as concomitants of hay fever, and when present must be considered the consequence rather than the cause. The symptom most frequently relieved is sneezing, and the accompanying flow of mucus. The restoration of nasal respiration relieves such symptoms as dryness of the throat and hoarseness. The relief of any accompanying asthma is, unfortunately, not so frequent. *W. Milligan.*

Stoker, George (London).—*Soft Fibromata from Nasal Fossa.* "Brit. Med. Journ." Mar. 25, 1893.

THE author refers to a lady, past middle life, who, after suffering from pleurisy and pneumonia, became subject to spitting of blood: this, though diagnosed to be of pulmonary origin, really came from the nose. Examination disclosed a papillary growth attached to the middle and inferior turbinals. Removal by cold- and galvano-snare took away all trouble.

Wm. Robertson.

Spender (Bath).—*On the Immediate Arrest of Haemorrhage from the Nose.* "Brit. Med. Journ." April, 1893.

A REFERENCE of some length to a rubber bag (Watson's), inflated after introduction into the nostril.

Wm. Robertson.

Haring (Manchester).—*Ozaena.* "Brit. Med. Journ." April 8, 1893.

THE treatment recommended was alkaline douches and Gottstein's plugs. Relapses were frequent, it is stated, on discontinuing the treatment.

Wm. Robertson.

Mayer.—*Complete Occlusion of both Nostrils by Webs of the External Orifice—Operation—Cure.* “New York Eye and Ear Infirmary Reports,” Jan., 1893.

ABOUT one and a half inches from the meatus of each nostril a firm membrane was found, causing complete occlusion. The patient, a girl of twenty-two, was suffering from syphilitic ulceration and destruction of the soft palate, and the webs were of specific origin. These were cartilaginous in consistency, and were cleared by the electric trephine. There was no appearance of cicatricial tissue about them. The obstruction had lasted about six months.

R. Norris Wolfenden.

Mayer.—*Congenital Occlusion of the Right Nostril Posteriorly by a Bony Plate—Operation—Cure.* “New York Eye and Ear Infirmary Reports,” Jan., 1893.

OBSTRUCTION of the right nostril occurred in a girl of seventeen. An echondrosis of the septum was removed by drilling. Though apparently free from any obstruction to sight, the occlusion was still absolute. A bony wall was then found to run directly across the nasal opening, two and a half inches from the external orifice. Two holes were drilled through it and the obstruction was overcome, breathing being then perfectly free. The two orifices made by the trephine, with an intervening band of bone about one-eighth of an inch wide, could be seen by rhinoscopy. No further measures were considered necessary.

R. Norris Wolfenden.

McCaskey.—*Case of Antral Disease—Electric Light in Diagnosis of Antral Disease.* “Clinical Studies,” Vol. I., No. 1.

AN ordinary case in which electric transillumination was of diagnostic value. Two similar instances are mentioned. *R. Norris Wolfenden.*

Scheinmann.—*Cases of Empyema of the Accessory Cavities of the Nose.* Berliner Med. Gesellschaft, Meeting, Mar. 20, 1893.

HE could not confirm the statement that, by illumination of the mouth, the pupil of the diseased side is darker than that of the healthy side. In one case exhibited, a patient for eight years had headache and protrusion of the bulbus. Opening of the frontal sinus was performed. Through pressure by the pus the under wall of the orbital cavity was protruded and carious. Cure resulted.

Michael.

Beckmann.—*The Nose and Naso-Pharynx, and their Relation to certain Diseases, especially Asthma and Scrofula.* Berliner Med. Gesellschaft, Meeting, Mar. 22, 1893.

RESPIRATION by the mouth in patients whose noses are obstructed from catarrhs or neoplasms renders the respiratory air much less moist than in persons with normal respiration. Diseases of the lungs, therefore, such as bronchial asthma or catarrhs of the pharynx, and extension of these to the ears, are the consequence.

Michael.

Zaufal (Prague).—*Manual Extraction of an unusually large Fibrous Naso-pharyngeal Polypus.* “Prager Med. Woch.” 1893, No. 11.

A PATIENT, thirty-seven years old, for seventeen years had such trouble in speaking that she could only with the greatest difficulty be understood.

For fourteen days also she had been unable to swallow. The whole naso-pharynx was filled with a grey, yellowish tumour. By the introduction of two fingers the author was able to remove the whole tumour. No bleeding followed, but some days later haemorrhage occurred which made tamponing necessary. The tumour had a weight of 112 grammes, a length of 16 centimetres, was 6 centimetres broad, and $3\frac{1}{2}$ centimetres thick. The microscopic examination showed it to have a fibrous structure. It is the largest tumour that has as yet been removed. *Michael.*

Bronner (Bradford).—*Vaso-Pharyngeal Disease.* “Brit. Med. Journ.,” Mar. 25, 1893.

Dr. BRONNER read a paper on this subject, and insisted on the permanent effects of even passing disease, pointing out that many adult cases of middle-ear deafness showed, in photographs taken in early life, unmistakable evidence of post-nasal growths, which had since vanished.

Wm. Robertson.

Clarke, Bruce (London).—*Treatment of Lupus of the Face by Free Removal and Skin Grafting with Large Flaps.* “Brit. Med. Journ.,” Mar. 18, 1893.

THIS method, employed in six cases, Mr. Bruce Clarke thinks an improvement on mere scraping, which cannot remove all the lesion. In connection with the above, Messrs. Watson Cheyne, Bidwell, Crocker and Balmano Squire reported cases similarly treated. Mr. Bidwell's case was that of a girl aged nineteen, who had a large patch of lupus on the inner side of the tongue, which had been freely excised, and the raw surface covered with Thiersch's grafts, and a good result had been obtained.

Wm. Robertson.

Bull, C. T.—*Tumours of the Orbit and Neighbouring Cavities.* “New York Med. Journ.,” Jan. 21, 1893.

IN a valuable paper, after the detailed relation of nineteen interesting cases, the author reaches the following conclusions :

Tumours of the sphenoid.—When a pathological process is limited to the sphenoid antrum, the subjective symptoms are either entirely absent or there may be severe pain in the head. If the disease spreads, symptoms arise pointing to the sphenoid as the seat of the disease, such as blindness, from compression of one or both optic nerves, and the visible appearance of a growth in the naso-pharynx, ethmoid,^{*} orbit, or skull. The entrance of the growth into the cranial cavity may occur without any subjective symptoms, or there may be severe headache. If very rapid, meningitis or cerebral abscess will result. Ophthalmoscopically are found papillitis or atrophy of the optic nerves. Tumours of the sphenoid may perforate the middle fossa of the skull without causing blindness, and this may be unilateral. If an orbital tumour rapidly causes blindness, and the latter starts from the temporal side of the field and leaves the region of the macula lutea unaffected to the last, and if at the same time a growth appears in the naso-pharynx, it is probable that the growth began in the sphenoid antrum.

Tumours of the ethmoid.—A morbid growth confined to these cells gives rise either to no symptoms, or merely to paroxysmal headache. The

orbital symptoms are the same as those of tumours of the orbit. The motility of the eyeball is limited, vision may be slightly affected, or there may be complete blindness. The visual field may not be involved. If the tumour has entered the naso-pharynx the mouth is more or less open, and speech nasal; later there is loss of sense of smell, there may be more or less continuous dropping of clear fluid from the nose, even in solid tumours, and there may also be orbital or palpebral emphysema and hemorrhage from the nostrils.

Tumours of the superior maxilla and maxillary antrum.—These may cause pain in the teeth of the upper jaw, dull pain in the antrum or region of the infra-orbital nerve, but not until they have attained considerable size, and nearly filled the antrum. Gradual absorption of the walls of the antrum follows, and a new thin scale of bone is developed from the periosteum. This may occur in the anterior orbital or alveolar wall, and the tumour soon grows towards the nose, and causes great enlargement of the hole communicating with the nasal meatus. These growths are often mistaken for nasal polypi. Subsequently diagnosis is easier, from projection forward of the anterior wall of the antrum, or displacement of the eyeball upward and outward, or inward, and protrusion of the floor of the orbit. A large tumour of the antrum would probably increase the breadth of the cheek, and push the nose towards the opposite side. If the tumour grows from the bone itself the inferior orbital margin is decidedly broadened. Tumours from the antrum itself tend to break through into the nose, mouth, or orbit. They early involve the nasal meatus, and extend into the spheno-maxillary and palatine fossæ and pharynx, and may finally perforate the base of the skull. They usually involve the orbit later, extending sometimes from the ethmoid cells even before the floor of the orbit is perforated. In no case is it possible to diagnose a tumour of the maxillary antrum early in its development.

Tumours of the naso-pharynx.—Tumours of the nasal and pterygo-palatine fossæ may enter the orbit through the intra-orbital fissure. They cause neuralgia of the infra-orbital or posterior alveolar nerves. They may involve the orbit, and extend into the cranial cavity in two branches. They eventually extend into all the neighbouring cavities. As to treatment, it is absolutely necessary that these growths should be completely extirpated early, together with all surrounding tissues, and the bony walls. If they have invaded the deep bones of the face and base of the skull, including the cavities, they are hopeless, and operation, though relieving temporarily, undoubtedly hastens the fatal termination.

R. Norris Wolfenden.

LARYNX.

Musehold (Berlin).—*New Apparatus for Photography of the Larynx.* “Deutsche Med. Woch.,” 1893, No. 12.

THE instrument cannot be understood without the illustrations, and the paper must therefore be read in the original. Some copies of photograms prove that good results can be obtained with it. *Michael.*

Brothers, A.—*The Complications and Sequela of Measles.* “Arch. of Pediatrics,” April, 1893.

LARYNGEAL cough is due to punctate spots and shallow ulcers in the air passages. This complication is very common. The symptoms suggest the diagnosis of croup. The eruption of measles appears in the mouth and throat twenty-four hours before it occurs on the body. Bronchitis and pneumonia are, of course, known to be frequent; pleurisy, empyema, and enlarged glands, scrofula and eye diseases also. Otitis media, and skin diseases, such as eczema, are common. Laryngeal croup is frequent. Genuine diphtheria has been met with so often that the author cannot consider it extremely rare. Whooping cough precedes and follows some cases. Nephritis is not common. Hyperpyrexia and meningitis are dangerous complications.

R. Norris Wolfenden.

Holz (Berlin).—*Laryngoscopical Results in Traumatic Neuroses.* “Berliner Klin. Woch.,” 1893, No. 11.

POLEMICAL article replying to the paper of Burger on the same subject. *Michael.*

Langerhans (Berlin).—*Lesions in the Lungs and Air Passages from Carbolic Acid Poisoning.* “Deutsche Med. Woch.,” 1893, No. 12.

A PATIENT, thirty-three years old, drank a little bottle of pure carbolic acid, intending to commit suicide. Death occurred some days later. The *post-mortem* examination showed hepatisation of the lungs. In the upper part of the cesophagus the mucous membrane was discoloured, yellowish, and partly ulcerated. The larynx was reddened throughout its mucous membrane, and that of the trachea and the bronchi were of grey, yellowish colour, and pellucid. The appearances must be regarded as the result of direct local cauterization by the carbolic acid. *Michael.*

Foxwell (Birmingham).—*Specimens of Lungs, Larynx, Trachea, and Liver from a Case of Syphilis.* “Brit. Med. Journ.,” Mar. 25, 1893.

THE larynx had a clean-cut ulcer on the posterior third of each cord and another at the base of the epiglottis. The trachea inferiorly was deeply ulcerated, as well as the bronchi, which were stenosed. *Wm. Robertson.*

Williams, P. Watson (Bristol).—*Foreign Body in the Larynx.* “Brit. Med. Journ.,” Apr. 8, 1893.

THE accident occurred in a man aged thirty, who had put a half-sovereign into his mouth and swallowed it, as he thought. It caused some difficulty in breathing, and the patient was aphonic. The author found the coin

lying below the ventricular bands on the vocal cords, and almost completely occluding the glottis. While being put under chloroform with a view to performing tracheotomy, the patient's struggles dislodged the coin into the pharynx.

Wm. Robertson.

Kuttner (Berlin).—*Further Contributions to the Study of Pachydermia Laryngis.*
“Virchow's Archiv,” Band 130, Heft 2.

A REPORT upon two cases of pachydermia; one of them was combined with typhoid ulceration, the other with syphilis. The author concludes that pachydermia has no relation to the ulcerations, and that both affections were independent of each other. The author believes that the formation of the so-called “Dellen” is caused by the pressure of the two processus vocales, as has been described by B. Fraenkel. The microscopical sections have a great resemblance to carcinoma from the existence of epithelial nests and micro-cellular infiltration.

Michael.

McBride, P.—*Pachydermia of the Larynx.* “Edinburgh Med. Journ.” Apr., 1893. A SHORT historical description of this rare laryngeal condition is given, special mention being made of Virchow's investigations published in 1887. Virchow describes this condition as occurring in the form of symmetrical elongated swellings of oval shape, situated in the region of the vocal processes. In the centre of each swelling a pit or hollow is found, which he says is due to the more intimate contact of the mucosa with the cartilage in this situation. In association with these swellings the epithelium of the vocal cords was usually found thickened, and at times a very marked development of epithelium was found in the inter-arytenoid region, in which fissures were occasionally noticed. In Sommerbrodt's cases all the patients were males, and the pachydermia affected the vocal processes. In one of his cases the patient had also leukoplakia in the mouth. According to Meyer, the subjective symptoms are not marked: a feeling of pressure in the throat, slight pain on deglutition, and more or less huskiness, comprise those observed. As causes of pachydermic changes in the larynx, especially in the inter-arytenoid commissure, chronic catarrh, abuse of alcohol and tobacco, tuberculosis and syphilis may be mentioned. The author calls attention to the relationship, from a pathological point of view, between the so-called singers' nodules and pachydermia. Most writers agree that the condition of pachydermia is a comparatively innocent one. As regards treatment, the internal administration of iodide of potassium in small doses, sprays of salt water or acetic acid (two or three per cent.), and intra-laryngeal injections of acetic acid are at times useful. Sometimes the lesion is so situated as to demand surgical interference. The author relates the histories of five interesting cases, and gives a table of the differential diagnosis of this condition from the inter-arytenoid tumour found in cases of laryngeal phthisis.

W. Milligan.

Photiades and Lardy.—*Contribution to the Surgery of the Respiratory Passages.*

“Rev. Med. de la Suisse Rom.,” Jan., 1893.

1. *Cancroid of the Left Cord—Laryngotomy—Extirpation—Cure.*
A man of forty-nine, hoarse for two years, had a small papillomatous

tumour situated on the left cord in its anterior third. There was no paresis of a cord, or glandular enlargement. The patient was a strong, healthy man. The growth increased slightly in size. Photiades diagnosed cancroid, rejecting intra-laryngeal operation, and proposed radical operation. A previous tracheotomy having been performed, the thyroid cartilage was subsequently cut through, the vocal cord and growth were cut away, the parts cauterized with the galvano-cautery, and the larynx sutured. A little granulation at the anterior commissure was afterwards removed by cold wire, along with a sequestrum of ossified cartilage. Sixteen months after there was no trace of recurrence, and the patient has remained in good health, with a clear voice.

Microscopic examination confirmed the existence of a cancroid penetrating to the muscular layers, although epithelial *perles* were not met with. The character of the epithelial buds penetrating deeply was sufficiently clear evidence of cancroid.

A few days after this operation another patient with identical condition refused intervention. Three months after tracheotomy became urgent, and within a year the patient died, all the front of the neck being occupied with a tumour the size of a child's head.

2. Partial Destruction of the Trachea, and Retraction of Calibre in its whole extent—Plastic Laryngo-Tracheal Operation—Cure.

This is the first case where an extensive plastic operation has been attempted upon the trachea.

The patient, a man of twenty-three, for some months had worn a tracheal canula, which it was found impossible to remove, and he threatened to commit suicide. There was no history of either syphilis or tuberculosis. Intra-laryngeally, only pretence of a glottis could be seen, and no trachea at all, only a fistula full of granulations.

A plastic operation was successfully undertaken, the report of which cannot be abstracted without detracting from the interest of the account, which must therefore be read in the original. *R. Norris Wolfenden.*

Mayer, E.—*Primary Chondritis of the Larynx, and Report of a Case with Destruction of the Cartilages, Tracheotomy, and Death Seventeen Months afterwards.* “New York Eye and Ear Infirmary Reports,” Jan., 1893.

The case occurred in the clinic of Dr. Morris J. Asch, and was that of a printer forty years of age, who came under observation in 1884, and who, sixteen years previously, after exposure, had a hoarse harsh voice which had remained so. A fresh exposure caused extinction of the voice. The left arytenoid was swollen to about three times its normal size, membrane dark red, the left vocal cord hidden, except in its posterior portion, which was pink. The anterior portion was adherent to the thickened mucous membrane. The right side was normal and the general health was good. A diagnosis of chondritis of the larynx was made, and applications of iod-iodide of potassium in glycerine were made, causing some improvement. Five months afterwards such dyspnoea occurred, with increased swellings in the larynx, unrelieved by applications of cocaine, that tracheotomy became necessary. Three weeks afterwards the upper part of the larynx was occluded by further swelling, the left side of the larynx pre-

senting the appearance of abscess. Six months after this, hard and painless swelling occurred round the tracheal tube extending down to the clavicle. There was no glandular swelling. Four months after this (January, 1886), a large amount of pus exuded from the tracheal opening, suppuration ceased later, but haemorrhage from the tracheal opening occurred in large quantity, checked by cold applications. Flow of pus and haemorrhages kept recurring, and rapid loss of flesh ensued. Two months after (March), he had bronchitis, the external swelling was large again, liquid nourishment only was possible. The dyspnoea was great, only relieved by the passage of a soft rubber catheter introduced below the tube. Swelling with fluctuation in the neck increased, and, finally, about two ounces of thick pus were discharged by the side of the tube. This exudation of pus continued, and, finally, the patient was seized with a chill, and he died on July 28th, 1886, seventeen months after the operation.

At the autopsy a large fungoid mass above and to the left of the tracheal orifice was found, and a large cavity was revealed alongside the thyroid cartilage on the right. This abscess cavity extended down along the trachea. Another cavity extended to the hyoid bone from the left side of the larynx.

Three large pus cavities were found in the larynx, one in a line with the fifth tracheal ring, and not communicating with the others. The cavity on the right side was filled with a pulpy mass. The third cavity extended backwards, destroying the whole of the left side of the larynx posteriorly. The right wing of the thyroid was ossified and partially broken down. Almost all the left thyroid was destroyed. The right arytenoid was swollen, the left one destroyed. The cricoid cartilage was necrosed and broken down into an indistinguishable mass. The left wall of the trachea was broken down by ulceration. "Subsequent microscopic examination showed that there was no evidence of malignant disease."

A number of authors are cited to show that primary perichondritis of the larynx is rare, and exceedingly difficult to diagnose in its early stages. The occurrence of perichondritis as a sequela of typhoid fever is said not to be known in America.

The very general destruction of the various cartilages gave little hope for any operative measures other than total extirpation of the larynx, which the patient's health did not allow of.

[A syphilitic history is presumed to have been absent in this case merely because it is not mentioned in the report. Only five grains of iodide of potassium, t.i.d., appear to have been administered; and it does not seem from the report absolutely certain that syphilis was excluded, either from the history or treatment.—*Abstractor.*]

R. Norris Wolfenden.

THYROID GLAND, NECK, &c.

Homen (Helsingfors).—*Contribution to the Symptomatology of Morbus Basedowii.*
“Neurol. Centralblatt,” 1892, No. 14.

THE author has observed two symptoms of the disease which have not yet been described, viz., intermittent swelling and pains in the joints, and tremor of the eyelids if the eyes are closed. *Michael.*

Determeyer (Berlin).—*A Case of Basedow's Disease treated by Operation.*
Freie Vereinigung der Chirurgen Berlins. Meeting, Dec. 12, 1892.

A PATIENT, thirty-seven years old, was affected in 1890 with influenza. After this morbus Basedowii appeared. The neck became thick, the eyes prominent; she also suffered from palpitations, headache, tremor, insomnia and vertigo, and loss of weight. The eyes could not be closed. There was also great tremor. One-half of the thyroid was extirpated by Dr. Rotter. Some weeks later the left portion of the gland was still enlarged, and the exophthalmos still existed, but the tremor, insomnia and headache had disappeared. Some months later exophthalmos and palpitations had disappeared; the weight had increased. The left-sided goitre was the symptom which had not yet disappeared. A relation between the operation and the improvement must be conceded. Up to now in thirty cases the disease has been treated by extirpation of the goitre. Of these twenty-seven have been a positive success.

JULIUS WOLF has performed the operation in five cases. One of them died; three have been improved; one died during operation. In the later reported cases there was great improvement, especially of the tracheal stenosis, which has been observed in all the author's cases, but two years later a marked recurrence of all symptoms was seen. Therefore he does not believe that the operation can cure the disease, but the temporary success of it cannot be denied.

I. ISRAEL affirmed that the case is not cured; only the enlarged thyroid disappears by operation. Palpitations, exophthalmos, and dilatation of the heart are still prominent.

ROTTER says that the symptoms are diminished, and that it would be right to say that the case is *nearly* cured.

I. ISRAEL believes that the symptoms which have disappeared can be explained by the cure of the tracheal stenosis.

ROTTER remarked that in the case presented there was no tracheal stenosis. *Michael.*

Guttmann (Berlin).—*Arterial Auscultation in Basedow's Disease and its Diagnostic Value.* “Deutsche Med. Woch.” 1893, No. 11.

IN cases of morbus Basedowii, the auscultation of the goitre reveals an arterial noise; in simple goitre this sound cannot be heard. This is a differential symptom of great value. *Michael.*

Bode (Berlin).—*On Operation for Goitre.* “Berliner Klinik,” 1892, No. 14.

STATISTICAL report on the operations at the Friedrichshain hospital.

Of twenty-four cases, twenty-three have been cured, one has died. A case of medullary carcinoma was operated on with good results, but the patient died two years later. *Michael.*

Koffer (Wien).—*Struma Congenita.* “Weiner Med. Blatter,” 1892, No. 39.

A CHILD, ten days old, had a very enlarged soft thyroid gland. The brothers and sisters of the child all had goitres. Many of the parents also had congenital goitres. *Michael.*

Wolfier (Graz).—*Cured Case of Struma Retro-pharyngealis.* “Weiner Med. Presse,” 1892, No. 23.

THE author removed the tumour, from a patient twenty-four years old, by pharyngotomia lateralis. Cure resulted. Before the operation the patient had difficulty in speaking and swallowing. The author proposes in cases of retro-pharyngeal struma, if it is isolated so that cachexia strumipriva might follow the operation, to dislocate the struma under the sterno-cleido-mastoideus, and to fix it there. *Michael.*

Meyer, Edmund (Berlin).—*Struma and Torsion and Compression of the Trachea and Perforation of the Trachea.* “Deutsche Med. Woch.,” 1893, No. 11.

A PATIENT, fifty-two years old, had a goitre since his early youth. For a year he had suffered from great dyspnoea. The right side of the neck was occupied with a tumour arising from the fossa jugularis. The trachea was dislocated by torsion about its axis, the right wall being prominent and diminishing its lumen. In the region of the fourth tracheal ring a tumour of the size of a bean could be seen. Diagnosis: struma intra-trachealis. An operation could not be performed on account of its danger. Treatment with iodide of potash. *Michael.*

Marsh.—*Thyroidectomy.* “Brit. Med. Journ.,” April 1, 1893.

IN a youth aged twenty, the operation being performed for acute bronchocele, causing dyspnoea. By a median incision Mr. Marsh removed the right lobe entirely, dividing the gland tissue well to the left of the trachea, which showed well-marked lateral flattening. In three weeks the lad had made a rapid recovery, the remaining part of the gland atrophying. There were no cardiac symptoms or exophthalmos. *Wm. Robertson.*

Wolf, Julius (Berlin).—*Communication upon the Extirpation of Goitre.*

“Deutsche Med. Woch.,” 1893, No. 11.

SEE the report of the meeting of the Freie Vereinigung der Chirurgen, May 9, 1892, in this Journal. *Michael.*

Braun (Leipzig).—*Genesis and Diagnosis of Isolated Endothoracic Goitres.* “Deutsche Med. Woch.,” 1893, No. 11.

SEE the report of the meeting of the Leipziger Med. Gesellschaft in this Journal, Jan., 1893. *Michael.*

Langhans (Bern).—*Destruction of the Peripheral Nerves in Cases of Cachexia Strumipriva of Men and Apes, and Cretinism.* “Virchow’s Archiv,” Bd. 128, Heft 2, 3.

THE blood vessels, especially the capillaries, have thick walls and an homogeneous and thickened adventitia. The lymph-spaces are dilated, and filled with cells, which are called “Blasenzellen.” These cells consist of a membrane, on the internal surface of which is a hilus, and two or three nucleoli. In the cells are walls, and they are filled with a clear fluid. On the internal surface of the perineurium a degeneration of the fibrillar tissue is found.

Michael.

Laache (Christiania).—*Myxœdema, and its Treatment by the Internal Use of Glandula Thyroidea.* “Deutsche Med. Woch.,” 1893, No. 11.

A PATIENT, forty-nine years old, since his youth often had swelling of the feet. Since the last year the inclination to swellings had increased. The arms and face were also swollen. The face resembled leontiasis. The glandula thyroidea could be felt. Temperature was lower than normal, and blood corpuscles were diminished. Treatment with boiled thyroid gland of sheep—later of the calf—was adopted. A reaction occurred, with urticaria and headache. In a short time the patient was much improved, the swellings had nearly disappeared, and the hairs increased. The patient showed psychical and physical improvement, and three months later he could be regarded as cured. The treatment must be regarded as specific.

Michael.

Vermehren (Copenhagen).—*Treatment of Myxœdema.* “Deutsche Med. Woch.,” 1893, No. 11.

(1) A PATIENT, forty-two years old, had suffered for seven years with dyspnoea and palpitations, swelling of the face, hands and feet, paraesthesia and anaesthesia of the hands and feet. The thyroid gland could not be felt. Treatment by the internal use of boiled thyroid gland of calves was adopted. Some days later, improvement was already manifest, increase of diuresis and sweating, with improved general health, and disappearance of the swelling. Three weeks later cure resulted.

(2) A patient, twenty-nine years old, since the fifth year of age had less than normal intellectual development, and had always headache, chills, and vague pains. Sweating was very slight. The thyroid gland could not be felt. The face was thick and swollen; the eyelids swollen and pellucid; the colour pale as wax. Treatment with pills of an extract of thyroid gland was adopted. Shortly after the beginning of the cure reaction, with increase of temperature and attacks of stenocardia, followed. The pills were therefore discontinued, but by and by much improvement of the whole condition followed.

Michael.

Kreusselin. — *Myxœdema.* “Deutsche Archiv für Klin. Med.,” Bd. 49, Heft 6.

THE author has observed a peculiar state of the blood, consisting in an enlargement of the blood corpuscles. He also found a diminution of

strength and psychical irritability. The specific weight of the blood is also increased, and the amount of haemoglobin greater than usual. Myxoedema produced by disease of the thyroid gland must therefore be regarded as a disease of nutrition.

Michael.

Frank (Wien).—*Contribution to the Knowledge of Lymph Cysts.* “Internat. Klin. Rundschau,” 1893, Nos. 13 and 14.

DESCRIPTION and illustration of a case of a large lymph cyst of the neck.

Michael.

Karewsky.—*On Fistula Colli Congenita.* Berliner Med. Gesellschaft, Meetings, Mar. 1 and 8, 1893.

THE relation of these fistulae to embryonic visceral arcus is not yet certain. The author has observed twelve cases, five complete and seven incomplete. Sometimes they resemble swollen glands. Sometimes an internal opening in the tonsil is found, or in the pharyngeal wall. All fistulae have a relation to the glosso-pharyngeal nerve. As to treatment, deep dermoids must always be extirpated, because they may transform into cancers. Operation upon the fistulae is only indicated when they cause severe symptoms, such as dyspnoea and difficulty in swallowing. Radical cure only is possible if nothing remains of the fistula. The complete fistulae are all cured after the first operation; the incomplete often require secondary operations.

SCHLANGE believed that embryonic fistulae are not so rare as is generally believed, and showed the specimens from two cases.

B. FRAENKEL mentioned the existence of fistulae in the tonsillar region.

Michael.

E A R.

Siebenmann (Basle).—*Functional Examination of the Normal Ear.* “Arch. of Otol.,” Jan., 1893.

FROM the examination of a number of young adults with apparently normal ears and good hearing—whispering and Politzer’s acoumeter at fifteen metres—the observer arrived at the following conclusions:—

(1) The healthy ear in youth possesses a hearing distance of from twenty-five to twenty-six metres for whispered numbers (German), and of at least fifteen metres for the Politzer acoumeter. (2) Schwabach’s test—absolute duration of “bone-conduction”—with the fork A reveals not inconsiderable differences even in perfectly normal ears. [Hence the necessity for being guided only by well-marked variations.—ED.] (3) In Weber’s test—tuning-fork on vertex—the fork was heard louder in one ear in one-eighth of the normal cases. (4) Rinne’s test—relative duration of “air-” and “bone-conduction”—with the Bezzold-Katsch fork A gives in normal cases a “positive” result, plus forty-eight seconds, being the average length of persistence of hearing opposite the meatus after cessation of hearing through the bone. To get this at its maximum it

was found necessary to allow a few seconds to intervene between the removal of the fork from the bone and its location opposite the meatus. [To allow for recovery of the auditory nerve from its normal exhaustion.—ED.] (5) The upper tone-limit is fairly constant, and lies between $d\omega^9$ and $m\omega^9$ (C^7 and E^7), as determined by means of Koenig's rods. With Galton's whistle the range is within '6 of the minor division of the particular note which represents the limit. (6) As regards the lower tone-limit, the Bezold-Katsch fork C^{-1} (thirty-three double vibrations per second) is perceived in all normal cases for about sixteen seconds with a medium blow. [The reader will in this connection find Bezold's more recent results in his paper in the "Zeitschrift für Ohrenheilkunde" for December, 1892, abstracted on page ____ of this number of the JOURNAL OF LARYNGOLOGY.—ED.] (7) Aspiration of the tympanic cavity—inspiration with closed mouth and nostrils—shortens the duration of perception of the fork A both by air- and bone-conduction. (8) Valsalvan inflation diminishes air-conduction for the fork A, and usually increases bone-conduction. (9) Under the influence of Valsalvan inflation the upper tone-limit is usually raised; frequently also the perception of the highest notes of the scale is rendered more acute; less frequently the pitch of the middle notes of the scale is altered. Aspiration, on the other hand, either does not influence the upper tone-limit at all, or lowers it somewhat. (10) Air-conduction for the fork C^{-1} is diminished both by auto-inflation and aspiration. In isolated cases the lower tone-limit is raised a tone and a half. (11) Increased tension of the annular ligament of the stapes through direct pressure upon the stapes augments bone-conduction. This was shown by an interesting case in which the membrane was lost and the ossicles exposed by disease. The tuning-fork A was held lightly on the skull till its tone was lost, and it was again perceived when pressure was exercised on the incudo-stapedial articulation by means of a probe. [The apparent contradiction between this result and that of the well-known Gellé's experiment calls for closer examination.—ED.] (12) Tamponing the niches of both the labyrinthine windows does not influence the perception of high notes.

[The value of such time-consuming experiments as affording a basis for our functional examination of diseased ears cannot be over-rated, and their repeated confirmation and extension are much to be desired.—ED.]

Dundas Grant.

Siebenmann (Basle).—*Results of the Functional Examination in Cases of Pure Catarrh of the Eustachian Tubes.* “Arch. of Otol.” Jan., 1893.

IN a number of cases Siebenmann found the following results of functional examination:—(1) Diminution of air-conduction—considerable lowering of hearing-power for conversation as from 15 mètres down to 5, 1'5 or 1 mètre, or even 15 or 10 centimètres for whispering. (2) Increase of bone-conduction to the extent of 10 or 15 seconds. (3) Lateralization in the more affected ear of the sound of a tuning-fork placed on the vertex—Weber *plus*. (4) Shortening of Rinne's test or its reversal to negative. (5) Elevation of the lower tone-limit even up to A^{-1} . (6) Reduction of the upper tone-limit as tested by Galton's whistle.

The effects of successful inflation were:—(1) Improvement in air-conduction—enormous increase in the hearing-power for conversation, watch, etc. (2) Augmentation—lowering—of the lower tone-limit. (3) Shortening of the negative Rinne test, which may even become positive—relative increase of air- as compared with bone-conduction. (4) The upper tone-limit remains unchanged, or the changes are scarcely appreciable. This is attributed to the hyperæmia *e vacuo* affecting the portion of the cochlea nearest the fenestra rotunda, namely, the portion of the membrana basilaris which has the shortest fibres, and, therefore, corresponds to the highest tones. This hyperæmia does not pass off with the first inflation. (5) Bone-conduction is not appreciably diminished. It is supposed that the hyperæmia affects the annular—stapedio-vestibular—ligament and produces a rigidity of the joint which the first inflation cannot dispel. [It will be remembered that in such cases auscultation during inflation reveals sounds indicative of Eustachian obstruction, but the process is followed by extreme improvement in hearing. Inspection shows little beyond indrawing of the membrane, which disappears almost entirely after inflation. Bacterioscopic examination gives negative results, as shown by the observations of Arno Scheibe, abstracted on page 404 of the JOURNAL OF LARYNGOLOGY for September, 1892, from the original article in the "Zeitschrift für Ohrenheilkunde" for April, 1892.—ED.]

Dundas Grant.

Bezold (Munich).—*A Further Communication on the Continuous Tone-Range, especially on the Physiological Upper and Lower Limits of Audition.*
"Zeitschrift für Ohrenheilk.", Dec., 1892.

THE author finds as *average uppermost limit* of audition in a number of normal ears that indicated by the mark 2·03 of Galton's whistle, the variations being between 1·5 and 3·6. Like Zwaardemaker, he found a lowering of the limit as age advanced, but to a less extent and with less regularity than did that observer. The *average highest limit for the different ages* was :—

Age 10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	Above 60.	
Galton's whistle	1·86 ...	1·81 ...	1·97 ...	2·22 ...	2·16 ...	2·29

As regards the *average lowest limit*, he considered comparatively negative results obtained with forks vibrating no more slowly than 19½ times per second as insufficient, and he got forks giving all rates from 30 down to 16, by which he found as the average 17·04. The *averages according to age* were shown thus :—

Age 10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	Above 60.	
Vibrations per second ...	16·72 ...	16·26 ...	16·92 ...	17·02 ...	17·20 ...	19·92

The comparative smallness of these variations is evident, and Bezold promises to publish the results of investigations with regard to the diminution of hearing-power for speech as age advances.

Dundas Grant.

Milligan (Manchester).—*Mastoid Operation.* "Brit. Med. Journ.", Apr. 8, 1893.

THE author refers to two patients on whom he had performed successfully Stacke's modified mastoid operation for chronic suppurative middle-ear

disease. The process of repair took two and a half months. This procedure was recommended when a fair trial had been given to local treatment, so as to free the patient from a source of ever-present danger.

Wm. Robertson.

Crawford (Liverpool).—*Squamous Epithelioma of the External Ear.* “Brit. Med. Journ.,” Mar. 18, 1893.

THE growth, in a man aged sixty-four, began as a small wart in the upper part of the helix, which increased gradually for seven months, when traumatism accelerated its development, so that in fourteen months it occupied the whole of the external ear except the concha and lobule. The mass averaged an inch in thickness, being particularly soft and papillomatous. It was removed by slicing it off, leaving the deeper part of the concha, the antetragus, and the lobule. Sections showed well-marked squamous epithelioma.

Wm. Robertson.

Gruber (Vienna).—*The “Secondary Suture” in Mastoid Operations.* “Monats. für Ohrenheilk.,” Dec., 1892, page 352.

PROF. GRUBER recommends the use of sutures after mastoid operations, not in the first instance, but after the wound has for a shorter or longer time been plugged with antiseptic gauze. By this he believes that the treatment in suitable cases is much shorter than when the wound is made to granulate from the bottom only. He follows this plan in cases where the operation is of an exploratory character, and where, for some reason or other, instant closure of the wound is undesirable, but seems justifiable later on. He finds it valuable in all cases in which it is not necessary to keep the wound open, even in cases where it is very deep, and not lined with granulations, but with healthy osseous substance. Depth is no contra-indication, and especially if there is no communication with the tympanum, the mastoid disease being shut off from that cavity in some cases in which the tympanum has been affected. It must be avoided whenever the wound communicates with a neighbouring suppurating cavity until that suppuration has ceased. It is sometimes difficult to say when this cessation is permanent. In doubtful cases the wound may be stitched in part, a small “wick” of antiseptic gauze being left in at the most suitable situation. In the operations all surgeons are most careful to preserve the periosteum, a practice directly at variance with the principle of keeping the wound open for any considerable time, and Gruber in his endeavours to obtain early closure includes it in his suture, the needle being passed deeply through this structure. [This progressive step is worthy of every operator's careful consideration.—ED.]

Dundas Grant.

REVIEWS.

Rethi (Wien).—*Mobilitätsneurosen des weichen Gaumens. Eine Klinische Studie.* (“Neuroses of Mobility of the Soft Palate. A Clinical Study.”) Wien: Holder. 1893. 50 pages.

IN a careful monograph, with references to a great number of publications (more than one hundred authors are cited), and containing some original observations, the author reviews the experiments and opinions held upon the subject, and concludes with the following *résumé*:—

- (1) Clinical observations prove that disturbances of mobility of the soft palate are caused by diseases of the vagus nerve.
 - (2) Physiological experiments and anatomical researches prove that the vagus nerve is the only motor nerve of the velum palatinum.
 - (3) The motor fibres of the levator veli palatini arise from the roots of the vagus. The ramus internus of the nervus accessorius must be regarded as belonging to the nervus vagus in physiological and anatomical relations.
 - (4) The motor fibres of the levator are always contained in the ramus pharyngeus vagi.
 - (5) The facial nerve does not participate in the motor innervation of the velum palatinum, and a double innervation (of the facial and vagus) cannot be accepted.
 - (6) Paralysis of the vagus can be produced by hypertrophic tonsils.
 - (7) Paralysis and paresis of the velum from enlarged glands in the neck and hypertrophied tonsils occur more often than is believed.
 - (8) The direction of the uvula cannot be used as a means of determination of the side of the paralysis, because sometimes it inclines to the healthy, sometimes to the diseased side.
 - (9) Degeneration of one side of the musculus azygos uvulae is often observed, so that deviation of the uvula may occur even if the nerves are healthy.
- Michael.*

Schnitzler, Joh. (Wien).—*Klinischer Atlas der Laryngologie und Rhinologie, nebst Anleitung zur Diagnose und Therapie der Krankheiten des Kehlkopfs, und der Lufttröhre, der Nase und des Nasenrachenraums.* Unter Mitwirkung von Dr. M. HAJEK und Dr. A. SCHNITZLER. III., IV., und V. Lieferung Braumüller: Wien und Leipzig. 1893. (“Clinical Atlas of Laryngology and Rhinology, with reference to the Diagnosis and Treatment of Diseases of the Larynx, Trachea, Nose, and Naso-pharynx,” with the collaboration of Dr. M. HAJEK and Dr. A. SCHNITZLER, III., IV., and V. parts, with 75 chromo-lithographic illustrations in 12 tables, 70 pages.

OF this excellent work, already reviewed in this Journal, three new parts are now published. All that was said in recommendation of the first

parts as to the contents and the perfection of the illustrations can also be said with reference to the new portions of the work, but we must restrict ourselves to the enumeration of the contents. Tables 9, 10, 11 give reproductions of characteristic cases of the different forms of tuberculosis of the larynx, also one of pharyngeal tuberculosis, and of an anatomical specimen. Tables 12 to 16 deal with syphilis of the larynx. Of special interest here are the cases of membranous adhesion of the vocal cords, and the after section of the membrane, and the dreadful destructions of chronic neglected syphilis (table 15), and the size of a perfect specimen of syphilitic ulceration and cicatrices (table 16). Tables 17, 18, 19 show the effect of the application of tuberculin to tubercular processes of the larynx, pharynx, and naso-pharynx. The last table (table 22) is one of laryngoscopical appearances, and reproduces the specimen of a case of combination of lues and tuberculosis. As is well known, the author is a great authority upon the question of this combination. *Michael.*

CLINICAL LECTURES ON PEDIATRICS.

A. JACOBI (New York).

(Session of 1892-93).

Delivered November 9, 1892. (Stenographic Report.)

[*The following Clinical Lecture, by Dr. Jacobi, contains so many useful and practical hints that we make no excuse for reproducing it complete from the "Archives of Pediatrics," April, 1893.*]

DIPHTHERIA.

THE following history has been obtained in this case. The girl is seven years old. Six days ago she complained of pain in the throat. This morning she cannot speak on account of hoarseness. The temperature is 103° in the rectum. On looking at the throat one sees some patches, and the enlarged tonsils. The glands under jaw are also swollen.

The child was here before and the mother was told not to bring her again because of the danger to other patients. Still, here she is again. You will remember what I said at a previous clinic, that dispensaries are expected to do a great deal of good; that is what they do, but they also do much harm. Doubtless hundreds go there to be infected with contagious disease from those that ought not to go to a clinic at all, but should be isolated.

For the purpose of diagnosis your attention is called to the following points: The patient has a temperature of 103° F. On both tonsils there are a number of isolated greyish spots. The tonsils and the general mucous membrane are not unusually red at all. Earlier, however, there has been redness, but it has disappeared, which shows that the local irritation is much improved. Not every membranous deposit is associated with an excessive hyperæmia. On the contrary,

not infrequently do we see a whitish membrane without much hyperæmia. Sometimes such spots appear upon a mucous membrane which seems to be intact. Yet remember that a mucous membrane which becomes diphtheritic cannot, with one exception, be intact ; there must first have been an abrasion, although it may have been a very small one. That is why I warn you against using swabs, against cauterizing, and so on in any form of diphtheria, for unless you touch the exact spot and only the exact spot of the false membrane, you will destroy epithelium, and then a new diphtheritic invasion or dissemination will take place. The one exception alluded to is the tonsil, where Stoehr demonstrated minute interstices between the superficial epithelia ; into these interstices diphtheria may find its way and involve the system without there being a sore or break of the surface in the ordinary sense of the word. But as a rule it gets a hold only where there is a superficial lesion. A surface which is very hyperæmic may be attacked by diphtheria afterwards, but it is not always so : hyperæmia by no means always precedes diphtheria. A very high degree of pharyngitis may run in its course, and even lead to suppuration, without being attended by diphtheria. As a rule, diphtheria and suppuration do not go together. The cases in which diphtheria is complicated with abscess are very rare indeed. When abscess does occur it is usually situated in the deeper tissues, say at the side of or below the tonsil, which then is raised and the seat of a good deal of pain and accompanied by fever. While you may not see such a case in the course of a year's active practice, yet it is necessary to know that it may occur.

In this girl's case there is one peculiar symptom ; she is absolutely hoarse. Hoarseness implies an abnormal condition of the vocal cords. Is there a membrane in the larynx, or is there simply a catarrh ? For a catarrh will give rise to the same hoarseness as a membrane. A great many of us when we have a laryngeal catarrh cannot make ourselves heard. This girl cannot ; she speaks in a whisper. This condition has existed only since this morning. Observe the chest. Is the respiratory movement such as to indicate dyspnoea and laryngeal obstruction ? No. The movements of the chest are fairly normal. It would seem, then, that there is no considerable obstruction in the larynx ; that the simple hyperæmia which had previously existed above has descended into the larynx and caused aphonia. If there were a dense membranous deposit in the larynx, difficulty would be experienced in getting sufficient air into the lungs, and the respiratory muscular action would be increased to force the air through the narrowed glottis. There is, in such cases, violent action of the diaphragm and the other respiratory muscles, the movements are especially noticeable above and below the clavicle ; here in genuine croup there is a considerable amount of retraction, the breathing becomes laboured, and the exertion to fill the lung becomes very great. The inspiration is drawn and protracted, besides being noisy. You can hear such a child's breathing and can see changes in the external aspect of the chest above and below very distinctly at a distance. Nothing of this diagnostic sign is visible in this case. The change in the vocal cords cannot, therefore, be considerable, although there must be some change to account for the hoarseness. There may be, however, a thin film of membrane, and I should decidedly be of this opinion if there had not previously been a hyperæmia above *and fever*. Some years ago, before diphtheria had become so constant and extensive in the city, isolated croup of the larynx was more common, the deposit on the vocal cord, with the signs I have just described, being the only diagnostic symptom. Such cases were attended by no fever because there are very few lymphatics on the vocal cord to absorb the virus. It was, and often is now, a local disease only, and destroyed life simply by strangulation. Thus as long as you have to deal with

a larynx which is filled with pseudo-membrane, with no diphtheria of the nose, naso-pharynx or pharynx, or other complication, the disease proceeds without fever.

But when you meet with a case of obstruction of the larynx with fever and nothing else, it is an inflammatory trouble, maybe a simple catarrh. Such are the cases of supposed croup to which you may be called in the night, and before you get to the house the attack of hoarseness and croupous dyspnoea is gone. They are accompanied by fever. If there be no fever they are dangerous, because probably pseudo-membranous and not simply catarrhal. When I made this distinction many years ago I was laughed down, but now I have the satisfaction of knowing that it is taught in many text-books. Once more : long drawn, slow inspiration, and absence of fever, mean in most cases pseudo-membrane ; increased number of respirations and increased temperature mean inflammatory disease of the respiratory organs, which, it is true, may be complicated with pseudo-membrane.

As to the nature of the case before us, I think we would be derelict in our duty if we did not treat it as one of diphtheritic laryngitis. There has been diphtheria of the pharynx, and the probability is that the trouble with the vocal cord is diphtheritic, and if let alone it may form a massive membrane which will lead to strangulation, and necessitate either tracheotomy or intubation. Since 1880, when I began to give mercury in so-called membranous croup, I have had the satisfaction of seeing many cases get well which formerly would die, whether with or without tracheotomy. Since the introduction of intubation I have also observed that cases with this operation do much better if mercury be administered before and afterwards. The preparation which I have always used is the bichloride. A child of this age ought to take about one-fiftieth of a grain every half hour for the first day, and every hour the next day. Some of it is always lost, so that if you prescribe one-fiftieth of a grain every half hour the child will probably get about two-thirds of a grain in the twenty-four hours. The younger the child the more it can take proportionately, so that if it be half a year old it may take about one-sixtieth of a grain every hour without being troubled by mouth or intestinal symptoms. Perhaps in one of thirty cases there will be a little vomiting or diarrhoea. When that takes place a few drops of tinct. opii camphorata will correct it. Be sure, however, that the mercury is given sufficiently diluted, say one part to eight or ten thousand, or even more, of water. The one-fiftieth of a grain in a tablespoonful of water would be about right, making a dilution of about one to twelve thousand. Babies that have no teeth will show less mercurial influence when so treated than older children, but these, too, are perfectly safe. It takes children longer than adults to get under the full influence of mercury, as far as over-dosing is concerned.

The child should be kept in a room of even temperature, above rather than below 70° Fahr. ; say 72°. Water should boil on the stove all the time. It would also be well to pour some crude oil of turpentine into the water, using, say a tablespoonful every hour, thus filling the room with the vapour of turpentine and water.

We have just learned something more about the surroundings of the case. The mother of the patient was confined only a few days ago, and therefore is liable, in the small rooms they occupy, to get diphtheria and die. Then there is the newly-born baby, with the stump of the cord, which can very readily become infected with the diphtheritic poison. Yet the woman who has brought the child here refuses to have it sent to the hospital. If we were a civilized

people the child would be taken away from the woman, whether she wished it or not, and be sent to the hospital, where there would be a chance to save it by performing intubation or tracheotomy should it become strangulated, and where it could not infect the puerperal mother and newly-born baby, or the whole neighbourhood. But what can we do under the circumstances? Absolutely nothing. We can simply wait for the time when, in a hundred years or more, we will be more civilized, and can protect ignorant people against themselves.

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**REPORT OF A CASE OF ALVEOLAR SARCOMA OF THE
SOFT PALATE.**

Cincinnati Academy of Medicine, April 3, 1893.

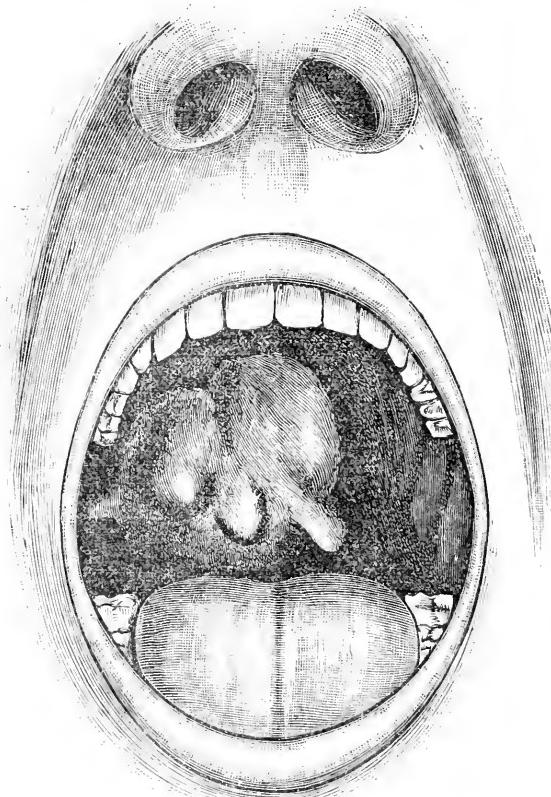
By T. V. FITZPATRICK, Ph.D., M.D., Cincinnati, O.,
Professor of Laryngology and Otology, Cincinnati College of Medicine and
Surgery, and Woman's Medical College of Cincinnati.

MRS. P., aged fifty, white, married, mother of ten children, seven of whom are living and healthy. The father died at eighty-five years of age of dropsy, probably of cardiac origin; the mother died at seventy-four of pneumonia; two brothers and one sister died of pulmonary tuberculosis between the ages of twenty-one and twenty-six years. One sister, aged fifty-seven, is now living and in good health. There is no history of malignant disease, nor is there any evidence of specific disease either in the antecedent or collateral family.

During early adolescence she had several attacks of quinsy. When thirty-three years of age she had a severe attack of tonsillar diphtheria. At the age of thirty-five there appeared on the right anterior pillar of the soft palate three or four small warty-like tumours. Six years later one of these tumours had attained such size as to materially interfere with mastication and deglutition. As estimated by the patient, the tumour was one inch in length by one-half inch in breadth, and pedunculated. It was removed by a physician of this city by clipping it off with a pair of scissors. No haemorrhage or unpleasant results followed this operation. This imperfect removal, however, was but the signal of the rapid growth

of the portion not removed. Within two years it had attained the size of a small hen's egg. Subsequently the growth was very slow.

I first saw the case in May, 1891. Inspection revealed a tumour situated on the right anterior pillar of the soft palate, measuring in its long diameter one and one-half inches by three-quarters of an inch in width. It was covered by a healthy mucous membrane, and to the touch gave the impression that it was filled with a semi-solid substance. Projecting from the free end of the tumour were three very small warty-like growths, which, from the gross appearance, seemed to be composed



chiefly of mucous membrane. Immediate removal of the growth was advised but declined by the patient. She seemed to be firmly impressed with the idea that the operation would end in death. So long as there was neither pain nor great discomfort she preferred leaving it alone. I did not see the case again for more than a year. In the meantime, however, it had again taken on rapid growth.

On June 10th, 1892, she again presented herself for advice. Her general appearance was that of a woman of impaired health, pale and anaemic. No particular cachexia could be said to be present. Weight, eighty-nine

pounds. The closest examination could not reveal any involvement of the lymphatic system. This fact, combined with the long standing of the case (fifteen years), led me to look upon it as being very probably a benign tumour. The immense size which it had now attained interfered so much with phonation, mastication, and deglutition that its removal became almost imperative. The free extremity reached almost to the dental arch, measuring *in situ* two inches in length by one inch in width at its base. At no place was there any ulceration of the surface, but, on the contrary, it was covered with healthy mucous membrane, pale in colour, and not very sensitive to the touch—in fact, there was no pain nor tenderness of the growth at any time. The shooting pre-aural pains, so characteristic of carcinoma and epithelioma in this region, were entirely absent. The effect upon phonation, mastication, and deglutition was merely mechanical. The three projections from the free end of the tumour were from one-eighth to three-eighths of an inch in length, and were probably the growths first noticed fifteen years ago. The lower jaw protruded very much, which was done to accommodate the size of the tumour, and gave her the very striking appearance so characteristic of hypertrophied tonsils.

On June 21st I removed the growth under the influence of cocaine. Before beginning the removal of the tumour, an exploratory incision was made into it. The knife, passing through the mucous membrane, came in contact with a dense fibrous capsule. My experience with an alveolar sarcoma of the tonsil (reported at the Cincinnati Medical Society, and published in the "Lancet-Clinic," Vol. XXIV., page 779) which was encapsulated in a dense fibrous membrane, making enucleation not only possible but very desirable, led me to attempt the enucleation of this growth. Therefore, an incision through the mucous membrane was made around the entire base of the tumour, which was done without much pain to the patient. I then enucleated the growth with my finger. It projected into the anterior pillar nearly half an inch. There was but little haemorrhage, which was easily controlled with tannic and gallic acids. The only interruption to the removal of the growth was the necessity of stopping long enough to allow the patient to breathe. The enucleation was complete; not a fragment of the growth, so far as gross appearance could reveal, was left. In ten days the opening in the anterior pillar was closed, and is at the present time, eleven months after the operation, perfectly healthy. A microscopical examination was made by Dr. Otis L. Cameron, of this city, and found to be an alveolar sarcoma.

This case is unique in regard to its slow development and localization. The tumour was very probably at its beginning a non-malignant growth of inflammatory tissue origin. This theory is at least sustained by the history of several attacks of inflammatory diseases of the throat and the very slow development of the tumour. Such extremely slow growth is not common to sarcomata of the soft palate. The longest time of development of any case reported was eight years. This was reported by Bryant. It was a case of tumour of the soft palate, and was reported as a fibro-plastic tumour. Dr. Bosworth regards the case as one of sarcoma, notwithstanding that it was reported as fibro-plastic. Of twenty

case reports compiled by Bosworth of sarcomata of the soft palate the time of development is given in only fourteen cases. Of these, the tumours in ten cases did not exist longer than two years; in six cases of these ten less than one year. Alveolar sarcoma of the soft palate is extremely rare. I have been able to find only one case reported. The patient, reported by Treves,¹ a male, aged sixty-eight years, had thirty-seven years previously a tumour removed from the left side of the soft palate. Eight months previously a tumour again appeared. For three months superficial ulceration existed. The carotid artery was ligated, and the tumour successfully removed. Four years later, no recurrence. It is a well-maintained fact that alveolar sarcoma is, with the possible exception of the melanotic variety, the most malignant sarcoma growth; and yet, strangely enough, the case reported by Treves was cured, and the case reported by me is still healthy nine months after the operation. These results sustain the doctrine of Butlin, that sarcoma has a tendency to localization. The doctrine is also sustained, so far as it applies to sarcoma of the soft palate, by the fact that in seventy per cent. of the cases reported there was no involvement of the lymphatic system. It is interesting to note that the present condition of the patient is excellent. She has gained twenty-two pounds since the operation.

ANNOTATIONS.

"CROUPOUS OR FIBRINOUS RHINITIS."

A GOOD many cases of "pseudo-membranous," "croupous," or "fibrinous" rhinitis have within recent years been recorded. It has been somewhat difficult to account for the etiology of this affection. With many resemblances to diphtheria, it has yet been considered most generally to be quite distinct from this latter disorder. The clinical features upon which such a supposition must be founded are, however, not very conclusive. Bacteriological research has latterly thrown considerable light upon the nature of this obscure condition. In the cases thus examined the Loeffler bacillus has been fairly constantly found—thus by Stamm in all four cases of typical membranous rhinitis, by Baginsky in two cases, by Abbott in three cases, and by Concetti in two cases out of five. In two other cases of the latter there was direct history of infection from one to the other, and in the last case a secondary formation of membrane in the larynx. That a mild form of diphtheria with membrane and without any severe general symptoms may occur in the nasal passages has been generally conceded to be quite possible, and that such cases of membranous formation may occur in debilitating and fatal disorders, such as pneumonia, is on record. But the identity of the membrane of "pseudo-membranous" rhinitis with the diphtheritic

¹ "Trans. Path. Soc., London," Vol. XXXVI., page 397.

process would seem from more recent investigations to be fairly well proved, and the probability seems to be great that if all these cases were bacteriologically examined the distinction of a fibrinous rhinitis of non-specific character could not be upheld. In different cases the virulence of the Klebs-Loeffler bacilli appears to vary considerably. Thus Abbott ("Med. News," May 13, 1893) found that cultivations from the nasal membrane of one little patient showing the symptoms of "fibrinous rhinitis" revealed this bacillus in large numbers, and of normal virulence, as evidenced by the fact that inoculations upon guinea-pigs caused death within forty-eight hours, with pathological lesions characteristic of these inoculations. But from a sister of the same patient affected with the same disorder (namely, membranous formation in the nares without general symptoms or sore throat) cultivations proved on inoculation to be devoid of pathogenic properties. The same thing occurred in Park's six cases, the bacilli cultivations possessing only a low degree of virulence. In what consists this modification of the pathogenic properties of the bacilli is an obscure, if interesting, question. But the probability is great that the bacillus varies from time to time in its intensity, sometimes, as Abbott remarks, presenting a complete absence of pathogenic power. The opinion has been held that the "pseudo-diphtheritic" bacillus, which is known to resemble the typical Klebs-Loeffler bacillus without possessing its virulence, is only the specific organism in an attenuated condition. The question of a bacillus during a portion of its life-history lying in a quiescent stage or a condition of attenuation is one which has engaged the attention of competent bacteriologists, with the result that the true diphtheria bacillus and the pseudo-diphtheritic bacillus have been considered by some to be one and the same organism, and, as Abbott pertinently remarks, the term "pseudo" is a misnomer. Evidence seems to be accumulating to show that these cases of so-called "fibrinous rhinitis" are merely mild local manifestations of the specific diphtheritic bacillus, and it cannot be too often insisted upon that the true nature of all membranous deposits upon the mucous membranes of the air-passages can only be definitely revealed by bacteriological research. Clinical signs, important as they are, cannot too surely be relied upon.

THE ROYAL INFIRMARY, LIVERPOOL.

IT is interesting to note the changes which are taking place in our general hospitals, with a view to increasing interest in special departments. Dr. John M. Hunt has been appointed Laryngologist to the Royal Infirmary, Liverpool, and we are pleased to see this first step taken by the authorities of that institution to recognize our specialty. The Royal Infirmary is connected with the University College, and so the appointment is a teaching one. It will, doubtless, add considerably to the efficiency of the clinical teaching, and the department will be well conducted by the gentleman who has been appointed.

**PROGRAMME of the FIFTEENTH ANNUAL CONGRESS of the
AMERICAN LARYNGOLOGICAL ASSOCIATION, NEW YORK,**

May 22nd, 23rd, and 24th, 1893.

Monday, May 22nd.

President's Address, by MORRIS J. ASCH, M.D., New York.

PAPERS.

- I. On Spasmodic Fixation of the Vocal Bands in or beyond the Median Line. S. SOLIS-COHEN, M.D., Philadelphia.
- II. A Case of Complete Glottic Spasm in an Adult followed by Unconsciousness and Prolonged Drowsiness. W. PEYRE PORCHER, M.D., Charleston.
- III. The Withholding of Statistics in Operations for the Relief of Cancer of the Throat. D. BRYSON DELAVAN, M.D., New York.
- IV. Arthritis Deformans of the Larynx. W. E. CASSELBERRY, M.D., Chicago.
- V. Recurrence at a New Site of a Laryngeal Growth (Papilloma) in a Case already reported under the title "Evulsion of a Laryngeal Tumour which returned Twenty-two Years after its Removal by Laryngotomy." R. P. LINCOLN, M.D., New York.
- VI. Intubation in the Adult. GEO. M. LEFFERTS, M.D., New York.
- VII. Rhinitis Cœdematosa. Laryngitis Hiemalis. J. C. MULHALL, M.D., St. Louis.

Tuesday, May 23rd.

- VIII. Two Cases of Tuberculosis of the Nose. JOHN W. FARLOW, M.D., Boston.
- IX. Remarks on the Structure of Cœdematous Nasal Polypi. JONATHAN WRIGHT, M.D., Brooklyn.
- X. The Use of Ozone in Atrophic Catarrh. C. C. RICE, M.D., New York.
- XI. The Cautery in Uvulotomy. T. A. DE BLOIS, M.D., Boston.
- XII. Salivary Calculi, with Reports of Cases. CLINTON WAGNER, M.D., New York.
- XIII. Buccal Voice: Illustrated by Presentation of a Patient who Phonates without a Larynx and without the Use of his Lungs. J. SOLIS-COHEN, M.D., Philadelphia.

At 7.30 p.m. Annual Dinner of the Association at the Hotel Waldorf.

Wednesday, May 24th.

- XIV. Remarks on Congenital Defects of Face with Exhibition of a Rare Form of Cleft Palate.
HARRISON ALLEN, M.D., Philadelphia.
- XV. Aspergillus Mycosis of the Antrum Maxillare.
JOHN N. MACKENZIE, M.D., Baltimore.
- XVI. An Improved Method of Draining the Antrum of Highmore.
GEORGE W. MAJOR, M.D., Montreal.
- XVII. On some of the Manifestations of Syphilis of the Upper Air-Passages.
J. H. BRYAN, M.D., Washington.
- XVIII. A Case of Sarcoma of the Soft Palate, illustrating the Degeneration of a Benign (Papilloma) into a Malignant Growth. With Specimen.
W. K. SIMPSON, M.D., New York.
- XIX. Discussion. Diphtheria : Its Prophylaxis and Treatment.
Opened by Drs. MULHALL and ROBINSON.

*OFFICERS, 1892-93.**President*—MORRIS J. ASCH, M.D., New York.*First Vice-President*—SAMUEL JOHNSTON, M.D., Baltimore.*Second Vice-President*—J. C. MULHALL, M.D., St. Louis.*Secretary and Treasurer*—CHAS. H. KNIGHT, M.D., 20 West 31st Street, New York.*Librarian*—*Council.*

D. BRYSON DELAVAN, M.D., New York.

HARRISON ALLEN, M.D., Philadelphia.

W. C. GLASGOW, M.D., St. Louis.

S. W. LANGMAID, M.D., Boston.

INSTRUMENTS, DIPHTHERIA, &c.

Scheppegræll.—*An Improved Vapour Apparatus.* “Med. News,” April 1, 1893.
A CONVENIENT apparatus for using vapours of various kinds in the Eustachian tube.

*J. Macintyre.***Farny.**—*New Laryngoscopic Mirrors.*

THIS well-known American firm has brought out a mirror of the finest white crystal glass, silvered and covered with cement, which makes it absolutely saliva-proof. The mirror can be easily removed from the handle, and subjected to antiseptic solutions, or dipped in boiling water. The antiseptic advantages of such an arrangement are obvious.

J. Macintyre.

Makuen, Hudson. — *A Modification of Gottstein's Curette.* “Med. News,” April 8, 1893.

IN this modification the handle is made of hard rubber with a fourchette at the end, which fits into the fourchette between the thumb and the index finger, thus enabling the operator to control the instrument perfectly.

H. Milligan.

Major. — *Nasal Septum Knives.* “New York Med. Journ.” April 8, 1893.

THESE knives are hooked, with blunt points, and fit into a universal handle with lever and spring attachment. They are specially designed for those cases in which there is a long crest or spur running in a horizontal direction from before backward along the lower third of the septum near the floor of the nostril. Their advantages over the saw are that the operation is done more quickly, less painfully, and the bleeding does not obscure the vision. They are useless for bony outgrowths such as are often found on the vomer, near its posterior margin.

B. J. Baron.

Munn. — *Diphtheria: a Clinical Study.* “Med. News,” March 25 and April 1, 1893.

THIS clinical study is well worthy of being read in the original, inasmuch as the views bearing upon the etiology, pathology and treatment are well tabulated. The author has made a very careful study of the figures bearing upon the deaths from this disease in Denver during the past five years. He has likewise tables giving his own experience as to the location of the false membrane, the age of the patient, &c. The subject is reviewed in a very careful way, and special portions are devoted to the relationship of scarlet fever and diphtheria; the relationship of diphtheria and follicular tonsillitis. In the chapter upon treatment he reviews the result of the remedies now commonly employed in this affection. He states that the local medicaments which gave him most satisfaction were hydrogen dioxide, corrosive sublimate, carbolic acid, and lime water. While he has used trypsin and an extract of pancreas, he does not consider them as valuable as corrosive sublimate or hydrogen dioxide sprays, which, by the way, he applies every hour or even every half-hour.

J. Macintyre.

Feer (Basle). — *Diphtheria without Membrane resembling Simple Angina.* “Correspbl. für Schweizer Aerzte,” 1893, No. 8.

DURING an epidemic of diphtheria the author found on the tonsils of three children true diphtheria bacilli without any formation of membranes. The children had the symptoms of simple catarrhal angina.

Michael.

Szegö (Budapest). — *The Polymorphism of Diphtheria.* “Jahrb. für Kinderheilk.” 1892, Nos. 2, 3.

REPORT of 102 cases of diphtheria observed by the author.

Michael.

Batori (Pesth). — *Combination of Diphtheria and Morbilli.* “Pester Med. Chir. Presse,” 1892, No. 32.

THE author believes that a relation exists between measles and diphtheria, similar to that existing between scarlet fever and diphtheria.

Michael.

Oertel (München).—*The Significance of Diphtheritic Membranes with regard to Treatment.* “Berliner Klin. Woch.” 1893, Nos. 13 and 14.

THE author distinguishes two forms of membranes, the first situated on the epithelium, the second under the epithelium, in the mucous membrane. In this case it is covered with epithelium. This second form is much more malignant. The author distinguishes between primary membranes, which are the consequence of the local infection, and secondary membranes, which are to be regarded as the result of universal infection. Then follows a polemical argument against the theories of Middeldorp and Goldmann, which must be read in the original. As to treatment, the author recommends inhalation of solution of carbolic acid. *Michael.*

Kersch.—*Treatment of Diphtheria without Local Measures.* “Memorabilien,” 1892, No. 1.

THE author recommends for the internal treatment of diphtheria a mixture of 50 soda salicylate, 50 potass. iodide, 200 aq. and 30 of syrup. A tablespoonful every hour. *Michael.*

Horing (Stuttgart).—*Treatment of Diphtheria with Pyoktanin.* “Memorabilien,” 1892, No. 9.

RELATION of twelve cases treated by the drug. All were cured.

Michael.

Behring, Boer, and Kossel.—*Treatment of Diphtheria Patients with Diphtheria Serum.* “Deutsche Med. Woch.” 1893, Nos. 17 and 18.

(1) *Standard of Treatment of Diphtheria.* Behring has obtained a serum from sheep which are immune from diphtheria, which he calls normal serum, and applying it in solution 1:5000—1:500, he was able to produce immunity against diphtheria in guinea pigs. For the cure of diphtheritic guinea pigs intoxicated with a lethal dose, it was necessary to perform a subcutaneous injection of a solution of 1:100 of the normal serum a quarter of an hour after the intoxication. Of thirty children affected with diphtheria, treated with the serum, six died, and twenty-four were cured—a mortality of 20 per cent. The author believes that the usual mortality of diphtheria is 50 per cent. (?).

(2) *On the Treatment of Children affected with Diphtheria with Diphtheria Serum.* Of eleven children treated at Koch's Institute, nine have been cured, and two died. Seven had membranes on the tonsils, two laryngeal stenosis, three obstruction of the nose. The serum was injected by Koch's syringe. No local reaction, and no general reaction followed.

(3) *On the Value of Diphtheria Serum.* A report upon the production of the cultures of the bacilli, and the *technique* of the production of the serum, and the methods of proving its value as a cure in animals, which must be read in the original. *Michael.*

Fiedler.—*Contribution to the Treatment of Laryngeal Croup by Muriate of Pyoktanin.* “Wiener Med. Presse,” 1892, No. 2.

THE drug was used in four cases, all of which died.

Michael.

TONGUE, PHARYNX, &c.

Eustace (Beluchistan).—*Sloughing Phagedena of the Tongue.* “Brit. Med. Journ.,” April 22, 1893.

THE sloughing commenced in an ulcer the size of a shilling occupying the site of the tip of the tongue. The surface was covered by a grey slough. There was no rise of temperature, nor were the submental glands enlarged. The patient acknowledged to leading an irregular life. He was put upon iron and quinine, and the ulcer was cauterized with pure carbolic acid, when seven days after the slough separated. The tongue was destroyed down to the phrenum. The subject was an Indian.

Hard Chancre of the Tongue.

A PERFECTLY primary sore on the tip of the tongue in a young native (Indian), aged twenty-two. The sore was characteristic, accompanied by enlarged glands, and followed by secondary syphilis.

Chancre on Upper Lip simulating Epithelioma.

THIS occurred in a Mohammedan male, aged twenty-five, who had suffered for two months from the ulcer, which originated in a crack. The ulcer was of the size of a shilling, with its centre at the mucocutaneous margin. It had a hard base, and the skin around was infiltrated. It was at first supposed to be an epithelioma, but on specific treatment being tried the sore rapidly disappeared. *Ergo*, in all similar conditions adopt antisiphilitic treatment for a time. *Wm. Robertson.*

Sachs (Berne).—*Sixty-nine Cases of Cancer of the Tongue.* “Langenbech’s Archiv,” Bd. 45.

A REPORT of the cases of this disease observed in Prof. Kocher’s clinic during the years 1872-89, with details as to the frequency of the disease, the infiltration of the glands of the neck, the differential diagnosis and the different methods of surgical treatment and their results. *Michael.*

Schlutten (Helsingfors).—*Total Extirpation of the Tongue and its Influence on the Speech.* “Deutsche Zeit. für Chirurgie,” 1893, Heft 5 and 6.

MANY authors state that extirpation of the tongue has no influence on the speech, but this is only in cases of partial extirpation. In cases of total extirpation the speech is changed, and instead of *h* and *t* the patient says *p*, instead of *m* he says *n*. *Michael.*

Wagner, Clinton.—*Papillomatous Growths of the Palatal Arches and Uvula.* “New York Med. Journ.,” Feb. 25, 1893.

THESE growths are said to be found at the junction of one of the pillars, usually the posterior, with the soft palate. They may look like a mere thickening of the mucous membrane, and the use of a probe to dislodge them is then necessary. The pedicle may be as long as one inch. Removal as closely as possible is the only treatment required. *B. J. Baron.*

Shelly.—*Vesicular Eruption on the Palate a Sign of Influenza.* “Brit. Med. Journ.,” April 15, 1893.

IT is claimed by the author that this eruption—which studs the soft, and sometimes the hard, palate in the form of small sago-like vesicles—although not restricted entirely to influenza, is yet so frequently found associated with this complaint as to become a pathognomonic sign of its presence. During an outbreak of the disease amongst the boys at Haileybury College in 1891 every genuine case presented the appearances referred to. The eruption, which develops best in the respiratory forms of the complaint in contradistinction to the neuralgic and rheumatic, although present in this, somewhat antedates the more pronounced symptoms, and remains after these are on the decline. An experience of two years in the observation only confirms the practical usefulness of the sign in the author's opinion.

Wm. Robertson.

Bulkley.—*Chancro of the Tonsils, with an Analysis of Fifteen Cases.* “Boston Med. and Surg. Journ.,” April, 1893.

THE author points out that the subject has not been very fully investigated. He quotes the authority of Prof. Boeck to the effect that, in Norway, chancres occur oftener in this location than any other after the genitals. This he considers is due to the habit of various members of a family using the same materials in eating and drinking. He considers the tonsils are frequently attacked because they are so apt to be affected by inflammatory conditions. The act of deglutition is also favourable to the development of chancrous deposition. In Prof. Boeck's practice they constituted 14 per cent. of all his cases of extra-genital chancro. He thinks chancres are very apt to be overlooked in this region. The author states that in twelve of his cases the chancro was innocently acquired. The characteristic features of the affection are enlargement of the tonsils, extreme hardness, superficial ulceration marked by sharply defined edges, and enlargement of the lymphoid glands. The first thing noticed by the patient is a stinging pain in the tonsils, and more or less difficulty in swallowing.

J. Macintyre.

Ziemssen (München).—*Parenchymatous Injections in Tonsillar Diseases.* XII. Congress für innere Medizin in Wiesbaden, April 12 to 15, 1893.

THE author recommends injections of two per cent. carbolic acid into the tonsils, and refers to excellent results thus obtained; also in a case of subacute sepsis.

SAHLI had performed tonsillar injections of two per cent. iodine trichloride in diphtheria with good results.

HEUBNER has been satisfied with the effect of injections in angina scarlatinosa.

Michael.

Bauer.—*Report of Three Cases of Pharyngeal Reflex Neuroses.* Aerztlicher Local Verein, Nürnberg, Meeting, Aug. 18, 1892.

(1) A GIRL, nineteen years old, had been affected with cough for several months. There was bad general health. Thoracic organs healthy.

Hyperplasia of the lingual tonsil ; galvano-cautery ; cure. (2) A patient, thirteen years old. For four weeks laryngeal chorea. Adenoid vegetations of the naso-pharynx. Operation with Gottstein's instrument. Cure. (3) A patient, eight years old, with universal chorea, lasting some weeks. Mouth breathing ; adenoid vegetations. Operation under narcosis. During the next few days increase of the choreic symptoms, but after four days decrease of the symptoms and cure.

Michael.

Campbell (Tubingen).—*Cryptogenetic Septicæmia.* Mittheilung der Tubingen Polyclin., 2nd Sept., 1892.

SEPTICÆMIA arising from a retro-pharyngeal abscess. Death. An exact diagnosis could only be determined through the *post-mortem* examination, the abscess having been very small, and without determining symptoms during life.

Michael.

Monakow.—*Spasmodic Dysphagia, with Demonstrations.* Gesellschaft der Ärzte in Zurich, Meeting, Nov. 22, 1892.

A PATIENT, thirty-two years old, was affected with dysphagic symptoms in consequence of psychical irritations. During the periodical attacks the food swallowed could only reach as far as the sternal region, and was regurgitated after some hours. At first the attacks only lasted a few hours, but some time later they lasted for days and weeks, so that the patient could not take any food, and showed symptoms of inanition. A bougie could only be introduced with difficulty, and the cardia could not be passed. Here it was grasped spasmodically or rejected. But finally the author was able to introduce it, proving that a stricture could be excluded. Under hypnosis the condition was improved for a short time. By gynaecological treatment it was deteriorated. Death followed from inanition. The *post-mortem* examination showed the œsophagus to be filled with food. The œsophagus showed a torsion about its axis. Nothing could pass into the stomach until this torsion was redressed. The mucous membrane was normal.

Michael.

NOSE, NASO-PHARYNX, &c.

Spear.—*The Singing Voice Improved by Nasal Treatment.* “Boston Med. and Surg. Journ.” April 6, 1893.

THE author, after reviewing the recent physiology of the voice, with particular reference to the part played by the nostrils, records two cases in which treatment of the nostrils was followed by improvement in the singing voice.

J. Macintyre.

Caspari (Berlin).—*Impediments to Nasal Respiration.* Inaugural Dissertation, Berlin, 1892

A GENERAL review.

Michael.

Pick (Prague).—*Psychopathic Symptoms produced by Nasal Diseases.* “Präger Med. Woch.” 1893, No. 16.

A PATIENT, twenty-three years old, had for some months symptoms of psychosis. She thought that a ghost ordered her to kill her husband and children. She was also convinced that her nose was filled up, and that the ghost resided in that organ. The examination of the nose showed the presence of rhinitis hypertrophica. Operation by the cold snare. Improvement followed in a short time, but some time later there was recurrence. She then became convinced that the ghost was no longer located in the nose, but in the head.

[There is no reason to regard the case as a reflex neurcsis of the nose, since psychical patients often combine somatic symptoms with their pathological ideas.—ABSTRACTOR.]

Michael.

Abel.—*Etiology of Rhinitis Fibrinosa.* Greifswalder Med. Verein, 21 Feb., 1893.

IN some cases the author has found diphtheria bacilli, in others he found pneumonia bacilli, in the membranes of rhinitis fibrinosa. *Michael.*

Dunn, John.—*Spontaneous Cure of a Papilloma of the Nasal Septum.* “New York Med. Journ.,” April 8, 1893.

THE patient, a man aged thirty, consulted the author regarding a nervous twitching of the right eyelid. In examining the nasal cavities for any probable cause of this affection, a papilloma was found on the left side of the cartilaginous septum at its inferior portion near the floor of the nose, and about three-quarters of an inch from the nasal entrance. In size it was about as large as the common white bean. Its surface resembled an ordinary skin wart. The patient had noticed it for about three months. It caused a certain amount of itchiness, and bled at times. Removal was suggested but declined. Two years later on, the patient again coming under the author's notice, no trace of the papilloma was to be seen. The patient stated that one day, about three months after his first visit, the growth “fell off” after he had been rubbing the nose with the tip of his little finger.

The author refers to the rarity of intra-nasal papilloma, and thinks that the spontaneous separation of the growth may explain in part why so few of these growths come under observation. In this case there was no accompanying nasal affection which might have acted as a determining factor in the causation of the papilloma.

W. Milligan.

Suchannek (Zurich).—*Ulcus Septi Narium Simplex (non-specific) and Perichondritis Septi Acuta et Suppurativa.* “Correspbl. für Schweizer Aerzte,” 1893, No. 8.

(1) A PATIENT, twenty-four years old, had obstruction of the nose for two weeks. The septum on both sides was covered with a tumour. It was opened by the galvano-cautery. Discharge of a teaspoonful of pus followed. Cure resulted.

(2) A patient, ten years old, had obstruction of the nose for ten days. Fourteen days before he had a traumatism on the nose. The left side of the septum was covered with a round tumour. Incision was followed by discharge of pus. The probe showed that there was a small perforation of the septum. Cure resulted. *Michael.*

Zaufal.—*Abscess of the Cartilaginous part of the Nasal Septum.* Verein Deutscher Aerzte in Prag, Meeting, April 21, 1893.

A PATIENT, thirteen years old, had a traumatism three weeks previously. Both sides of the septum were covered with red tumours. The abscess was opened immediately to prevent necrosis of the septum and the persistent perforation which would have followed. *Michael.*

Abel.—*Bacteria in Ozæna.* Greifswalder Med. Verein, Meeting, 21 Feb., 1893.

IN sixteen cases of ozæna, rhinitis atrophicans foetida, the author has found a bacillus similar to that described by Loewenberg. It is similar to but not identical with Friedlander's pneumonia bacillus. The author believes that it is specific for this disease, but that it is not the cause of the foetor. *Michael.*

Abel.—*Etiology of Rhinitis Fibrinosa.* Greifswalder Med. Verein, Meeting, Jan. 7, 1893.

IN some cases of the disease the author found Loeffler's bacilli.

Bacteria in Ozæna. In sixteen cases of the disease the author found the microbe described by Loewenberg. *Michael.*

Cerna, P. (Galveston, Texas)—*Maggots in the Nose.* "New York Med. Journ.," April 1, 1893.

A LETTER referring to Dr. Kimball's report. The writer had seen four cases of the same nature. The only satisfactory treatment was calomel by insufflation. All the patients recovered. In one case three hundred and eighty-eight maggots were counted. The writer had had no experience of chloroform. He does not agree with Kimball that the fly deposits its larvæ only on unsound membrane; three of his patients having been entirely free from local or constitutional taint.

[A writer under the initials U.S.A. claims that administration by the mouth of quinine in five grain doses every second hour, until thirty grains had been taken, was a routine treatment with him when on a service tour in Texas. He claims to have had good results.] *R. Norris Wolfenden.*

Kimball, J. P. (Texas)—*Maggots in the Nose Successfully Treated by Injections of Chloroform.* "New York Med. Journ.," March 11, 1893.

THE first patient was a private soldier with cephalgia, anorexia, fever, passing into delirium. Bloody serum was discharged from the left nostril with offensive odour. Several maggots were washed out, and after inhalation of chloroform all the larvæ (fifteen to twenty) were removed by Hinde's forceps, and an injection of a drachm of carbolized oil was made into the nostril. Relief was only temporary, and all the symptoms recurred, and a writhing mass of maggots was seen in the left

nostril, which were removed in the same manner. Again the condition of the patient became worse than ever—maggots escaping from the mouth as well as the nose. The breath was very fetid, and deglutition impossible from the swollen palate. Food and drink had to be given by a stomach tube. An injection of two drachms of pure chloroform was given, followed by carbolized oil, and the nostrils were washed out with a ten volume solution of peroxide of hydrogen. The effect was immediate, and one hundred dead larvae were expelled by syringing and sneezing. Further treatment of the same character ended in getting rid of the maggots, in all not less than three hundred. Portions of the mucous membrane of the nose and naso-pharynx in a gangrenous condition were detached and washed out from time to time, and recovery was slow.

The fly is the *Sarcophaga Georgina* (Wildemann), 12 millimètres in length; the larva, commonly called the "screw worm," is 18 millimetres long, and the larvæ develop very quickly and greatly in numbers.

The author has reliable information of seven cases of maggots in the nose, which have all occurred at Fort Clark during the last ten years, and of which all, except one, have been fatal. Ozæna existed in all the cases when the patient contracted the disease, and the strong odour attracts the fly, which deposits its larvæ only upon unsound mucous membranes. Of four other cases the author has been unable to gather anything but meagre details. All, however, proved fatal.

In any fully-developed case—*i.e.*, forty-eight or more hours from the time of deposit of the larvæ in the nostrils, when the maggots are then full grown and possess great vitality—all the ordinarily suggested remedies (alcohol, ether, turpentine, corrosive sublimate, decoctions of bitter herbs, &c.) are useless; only injections of pure chloroform can be relied upon. 50 per cent. carbolic acid, and 1-500 solution of corrosive sublimate did not kill the maggots experimentally tried. Five minutes' immersion in oil of turpentine caused death. Chloroform, however, caused instant death when in contact with the liquid. The vapour only stupefies.

R. Norris Wolfenden.

Freudenthal.—*Asepsis or Antisepsis in Nasal Surgery.* “New York Med. Journ.,” Feb. 11, 1893.

THE questions discussed in this paper are two: (1) Is a strict antisepsis possible in nasal surgery? (2) Is it a necessity?

In discussing the first question, the possibility of bringing about an aseptic condition of the nostril, the opinions of Rice, who advocates syringing the nose some days before a nasal operation with an antiseptic solution, are referred to; the author shows that this is valueless, from the rapidity with which septic discharges tend to gather. He also disapproves of it because it is inefficient in removing and destroying the septic organisms that inhabit the nostrils.

He pleads for the performance of all nasal operations with clean instruments and hands.

The after-treatment of wounds of the nostril is discussed, and Roe's attempt to hermetically seal it condemned, because of the impossibility of excluding all air, and because of the fact that all foreign bodies, as plugs,

are apt to set up local inflammation and trouble, accompanied by the risk there is of damming back septic pus and other discharges; he prefers the open after-treatment of all cases.

As regards the *necessity* of antisepsis in nasal operations. Here the author rightly insists on the immense importance of placing the patient in good sanitary conditions, and cites cases where septic sore throat, scarlatina, diphtheria, &c., have caused dangerous complications in patients with nasal wounds. All antiseptic sprays and washes are omitted; general spraying with sterilized warm water, followed by blowing the nose to remove discharges, is regarded as very satisfactory. A physiological solution of salt, with a little caustic soda, as used by Tavel, of Berne, is said to be good. Collodium applied to the wound, and a small cotton wool plug, which is removed on reaching home, is placed just within the nostril as a protection, after bleeding has stopped.

B. J. Baron.

Birmingham, E. J.—*A Plea for Cleanliness in the Treatment of Naso-Pharyngeal Catarrh.* “New York Med. Journ.” March 11, 1893.

THE cavities should be cleansed once or twice daily with a non-irritating solution, such as Dobell’s, Seiler’s tablets, listerine, or glyco-thymoline. The latter is the best, and diluted with water to make a 25 per cent. solution.

The old Thudicum douche “is to be unqualifiedly condemned,” and also any device for introducing large quantities of fluid into the nasal cavities with any force. Sniffing is even dangerous, and syringes should be avoided. The writer has had his own douche cup manufactured. It has a capacity of about seven drachms. The nozzle is introduced into the nostril, the head thrown back, and the fluid allowed to run through into the throat. The flow may be checked by simply closing the funnel with the finger. The solution should be kept in contact with the parts for two minutes before clearing the nose and throat.

This device is said to be adopted at several clinics in the New York Throat and Nose Infirmary.

R. Norris Wolfenden.

Flatau (Berlin).—*Rhinological Memoranda.* “Aerzte Practiker,” 1892, No. 39.

REPORT upon the relation of nasal, pharyngeal, and laryngeal diseases.

Michael.

Weinlechner.—*Rhinophyria (Acne rosacea).* Gesellschaft der Aerzte in Wien, Meeting, Feb. 17, 1893.

SOME cases reported treated by *decolllement* of the nose, followed by Thiersch transplantations. In all cases a good result was obtained.

Michael.

Schmidt, M. (Frankfurt-a-M.).—*Treatment of Deviations and Excrescences of the Septum by Electrolysis.* XII. Congress für innere Medizin in Wiesbaden, April 12 to 15, 1893.

RECOMMENDATION of the treatment as being less painful than other methods.

BRESGEN preferred galvano-caustic treatment.

Michael.

Roe (Rochester, N.Y.).—*The Correction of Deformities of the Nose resulting from Abscess of the Nasal Septum.* “New York Med. Journ.,” March 25, 1893.

AFTER alluding to the causes of the abscess, the author mentions that the deformity resulting from simple abscess can usually be distinguished from that resulting from syphilis, by the fact that in the former case the triangular cartilage alone is affected, the soft parts remaining intact. In syphilis usually, but not always, the soft parts are also attacked. The following description of the operation in Dr. Roe's own words is fully explanatory :—

“A girl, sixteen years old, had had from infancy an extremely flattened condition of the nose, that was undoubtedly the result of an unrecognized abscess, there being no history of inherited specific disease, or evidence of scrofulous taint. Examination showed the nasal bones to be normal, but the triangular cartilage of the septum to be entirely absent. The soft parts were intact in their normal proportions, but so flattened upon the face from lack of central support as to give the girl a very unsightly appearance. The difficulty in this case was to find enough material to render the septum sufficiently firm and rigid to hold up the end of the nose. There was, as is usual in these cases, a marked widening and thickening of the dorsum of the nose proportionate to the amount of flattening. This thickened ridge of tissue was incised through to the under side of the skin on both sides a short distance from the septum at a point where it thinned into the alæ of the nose. The skin was then raised from the dorsum of the nose, and the flaps were turned upward and held in place by small ivory splints, having holes through which sutures were passed from one to the other through the flaps, and tied so as to hold them firmly in place without strangulating the parts. This relieved the flattened condition of the nose, and also gave the dorsum a sharpened appearance. The nose was, however, altogether too flat. Owing to the entire absence of the triangular cartilage, there was not sufficient central support to hold the nose upright. In order to increase the solidity of the septum, I first scarified each side of the lower portion of the septum and the floor of the nose, and divided the anterior portion of the septum, leaving the front portion of the skin intact. I then cut wide, thick flaps from the floor of the nostril opposite the portion of the septum which I wished to make more rigid. These were turned upward and held together with clamps in a manner similar to the other flaps, and their upper borders were also connected to the cut portion of the septum with fine sutures. The result was most excellent.”

B. J. Baron.

Silk, J. F. W. (London).—*Anæsthetics in Operations on Adenoid Growths.* “Lancet,” Mar. 4, 1893.

DR. SILK emphasizes the view that, whatever other precautions be taken, when once the anaesthesia has been induced as little additional anæsthetic as possible should be given. [This is the strongest possible argument in favour of the surgeon acquiring dexterity in the practice of whatever may be the most rapid mode of removing the growths—ED.]

Dundas Grant.

Ziem (Danzig).—*Newest Phase of Electric Illumination in the Diagnosis of Empyemr of the Antrum of Highmore.* “St. Petersburger Med. Woch.,” 1893, No. 5.

A POLEMICAL article.

Michael.

Boncko (Berlin).—*The Relation of Purulent Inflammations of the Teeth in the Upper Jaw to the neighbouring parts, with special regard to the Antrum of Highmore.* Berlin: T. Backer, 1892.

A GENERAL review, illustrated by some histories of patients. *Michael.*

Heymann, P. (Berlin).—*Benign Tumours of the Antrum of Highmore.* “Virchow's Archiv,” Band 129.

THE author has examined five hundred specimens of antrums, and has found in them thirty-one tumours. He found one cyst, nearly filling the whole cavity, and causing absorption of its internal wall; three osteomata; the other were mucous polyps and cysts. Only when they are very large or combined with empyema is it possible to discover them during life. He also describes a polypus, consisting of folds resembling the gills of a fish. The patient had also some nasal polypi. *Michael.*

Repp (Darmstadt).—*Empyema of the Antrum of Highmore.* Inaugural Dissertation. Darmstadt, 1892.

THE author begins with the history of the diagnosis and therapeutics of this disease, and reviews the opinions of authors since the sixteenth century; then treats of the anatomy and the different views held as to the physiological function of the sinus, and the different etiological factors in disease of the antrum. To the well-known causes he adds pyorrhœa alveolaris, in which disease the whole alveolus is filled with pus, and if the diseased teeth are not extracted the infection also attacks the antrum of Highmore. He distinguishes two forms of the disease—a latent form, first known during the last few years, and one with the classical symptoms of the disease. The only symptoms often are disagreeable taste and smell, or neuralgic affections of the trigeminus followed by different hypochondriacal symptoms. Distension of the walls of the cavity is only observed if the nasal introitus is closed. In some cases the discharge of pus from the cavity can be observed by the rhinoscope. Serious complications are rarely observed. In most cases the affection is chronic. For diagnosis in latent cases we use the introduction of a probe, the exploratory puncture, and illumination. The last method has not the great value first claimed for it. The percussion of the cavity also gives no sure results; auscultation is useless. The prognosis is good, but the treatment must be continued for a long time. The author then reviews the different described methods of treatment, and concludes that by any of these methods, if applied to the right cases, good results may be obtained. He then refers to eight cases of empyema of the antrum of Highmore observed in the clinic of Dr. Suchannek, and concludes with a list of two hundred and fifty cases, and a review of the literature, containing more than four hundred references. There has not been before any similarly exact review of the subject: the little work may, therefore, be recommended.

Michael.

Onodi (Budapest). — *The Nasal and Accessory Cavities — Reproduction of Anatomical Sections in Twelve Tables.* Wien: Alfred Hölder.

IN spite of two excellent illustrative works upon the same subject, published in Germany during the last few years, the photographic reproductions of B. Fracnel, and the illustrated anatomy of the nasal cavities by Zuckerkandl, this little book will be welcome, especially to medical practitioners who have no desire to purchase dear monographs on the anatomy of such a special part of the human body. In twelve tables we find well-selected sections of the nasal cavity and the accessory sinuses. They are introduced by a short and clear anatomical description.

Michael.

LARYNX.

Bleyer. — *Diet, Digestion, and the Voice: with many Remarks of Value to all Voice-Users—Do's and Don'ts.* “The Times and Register,” Feb. 18, 1893.

DRINKING water *not hotter than 120° F.* an hour or two before every meal and at other times is recommended, as also is the use of Carlsbad Sprudel salt; avoidance of irritating foods and drinks, including ice water and alcohol, also of tobacco, is insisted on. A proper amount of sleep and exercise is essential; avoidance of too much vocal work, of hot rooms and narcotics, is enjoined. A nasal douche of warm water, with lime water and peroxide of hydrogen in it, cleaning the teeth, and using an antiseptic gargle after every meal are highly recommended.

B. J. Baron.

Rethi. — *The Epiglottis, Arytenoid Cartilages and the lower portion of the Pharynx during Swallowing.* Physiological Society of Vienna, Meeting, Feb. 28, 1893.

THE author has made experiments upon cats, and has found that the depression of the glottis during swallowing is not caused by muscular action, but by the pressure of the bolus. The vocal cord and arytenoid cartilages are in strong adduction, the lower portion of the pharynx is excavated.

Michael.

Burrell. — *Indication for Tracheotomy, and for Intubation.* “Boston Med. and Surg. Journ.” April 6, 1893.

THE writer of this article makes a very fair statement concerning these two operations. He has not come to the conclusion, like some, that intubation will supplant tracheotomy. He believes that each operation is useful, but in a selected field; that these fields have not yet been defined. He trusts by careful consideration of the character of the obstruction to classify them. He gives a clinical classification of the types of dyspnœa due to obstruction, and gives the following indications for each operation:—

Indications for tracheotomy.—Dyspnœa, caused by pressure from new growths, enlarged glands, cellulitis of the neck, pressure on the recurrent laryngeal nerve (?), foreign bodies in the larynx or trachea; where new

growths, fractures of the larynx or trachea (?), or where membrane (either diphtheritic or fibrous) has extended well below the vocal cords.

Indications for intubation.—In the early stages of croupy cases in children; in the case of diphtheria where the membrane is principally in the fauces; in cases of dyspnœa in children dying of diphtheria, where the parents will not consent to tracheotomy.

J. Macintyre.

Pott (Halle).—*Intubation in a Case of Spasmus Glottidis.* “Münchener Med. Woch.,” 1893, No. 16.

A CHILD, one and a half years old, was suddenly attacked with syncope during an attack of glottic spasm. Respiration and cardiac movements ceased. An O'Dwyer tube was introduced. After some minutes the cardiac pulsation and respiration returned, and cure followed. *Michael.*

Stembo (Wilna).—*Case of Spontaneous Cure of a Laryngeal Polypus after Tracheotomy.* “St. Petersburger Med. Woch.,” 1893, No. 5.

A PATIENT, forty-two years old, had cough, hoarseness, and attacks of suffocation for some months. She was pregnant, and in the seventh month. She became strongly dyspnœic. The laryngoscopical examination showed a tumour to be situated under the vocal cords, nearly filling the tracheal space. Next day tracheotomy was performed. During the next few weeks the tumour disappeared, the respiration became free, and a few weeks later the canula could be removed.

Michael.

Stadler (Bremen).—*Multiple Papilloma of the Larynx in Children.* Inaugural Dissertation. Gottingen, 1892.

REPORT of six cases treated by laryngo-fissure. Two cases were cured, three cases became aphonic, and one died.

Michael.

Chiari (Wien).—*Case of Hereditary Syphilis in a Child of Four and a half years.* “Archiv für Kinderheilk.,” Band 15, Heft 3 and 4.

DETAILED history of a syphilitic child, four and a half years old, suffering from great stenosis, cured by tracheotomy and subsequent antisyphilitic treatment.

Michael.

Rubsamen (Königsberg).—*Contribution to the Knowledge of Laryngitis Hypoglossica Chronica.* Inaugural Dissertation. Königsberg, 1892.

A PATIENT, thirty-six years old, suffered from great dyspnœa. The laryngoscope showed the presence of two tumours causing subglottic stenosis. The mobility of the vocal cords was normal. Tracheotomy was performed, and the tumours treated with the galvano-cautery through the tracheal wound, up to now without effect.

Michael.

Stoerk (Wien).—*Carcinoma of the Vocal Cord.* “Wiener Klin. Woch.,” 1893, No. 15.

A PATIENT, fifty-four years old, had been hoarse for some months. On the right vocal cord a tumour was situated. The microscopical examination showed that it was a cancroid. Tracheotomy and extirpation of the vocal cord were performed. The defect was covered with mucous membrane. Cure resulted. The laryngoscope showed that the membrane

performed the function of a vocal cord. The patient now has a loud voice.
Michael.

Socin.—*A Cured Case of Laryngeal Carcinoma.* Med. Gesellschaft der Stadt Basel, Meeting, 19 May, 1892.

A PATIENT, fifty-eight years of age, had a little carcinomatous neoplasm in the larynx, situated on the left vocal cord and the left ventricular band and a cervical gland enlarged into a hard tumour of the size of a fist. Extirpation of one-half of the larynx and of the gland was followed by cure. The author used the occasion to examine the sense of taste of the larynx, but careful examinations of the mucous membrane gave negative results.
Michael.

Grabower.—*A Case of Paralysis of the Posterior Muscles combined with Tabes.* Berliner Med. Gesellschaft, Meeting, April 26, 1893.

CASE shown by the author.
Michael.

Davies, the late Herbert (London).—*The Relationship between the Phrenic and Inferior Laryngeal Nerve.* “Lancet,” Jan. 21, 1893.

DR. DAVIES offers the following very ingenious explanation of the circuitous course of the inferior laryngeal nerve. In order that in inspiration the opening of the glottis should be simultaneous with the descent of the diaphragm, the nerve supplying the glottis-opener (recurrent laryngeal) should be nearly of the same length as that supplying the diaphragm (phrenic). The recurrent nerve, therefore, takes a winding course. In phonation, on the other hand, the tension of the vocal cords ought to precede the action of the expiratory muscles, and hence the external branch of the superior laryngeal, supplying the crico-thyroid, takes the shortest and most direct route to the muscle. The multiple origins of the phrenic nerve in the neck is explained by the necessity for guarding against possible interference with its function by the pressure of muscles or other parts on one or more of the roots. Dr. Davies reminds us that nerve force travels at the rate of one hundred and ten feet per second—a very slow speed as compared with that of electricity—and that difference in length of nerve cannot be disregarded. [The greater length of the left recurrent as compared with the right has its parallel in the case of the left phrenic. These fascinating mechanical speculations will be recognized by all who had the privilege of knowing the late Dr. Herbert Davies as eminently characteristic of his interesting mode of reflecting on physiological problems.—ED.] *Dundas Grant.*

Swift.—*Chloroform Anesthesia as an Aid in the Diagnosis of Laryngeal Obstruction.* “New York Med. Journ.,” April 15, 1893.

THIS is a letter to the editor suggesting the propriety of giving chloroform to a child suffering from dyspnoea, in order to see how much of this is due to mechanical obstruction, and how much to spasm, which the anæsthetic allays.
B. J. Baron.

Klinedinst. *A Foreign Body Impacted in the Larynx for Seventeen Months; Removal by Laryngo-Tracheotomy.* “Med. News,” March 25, 1893.

THE patient in this instance met with an injury from a weight falling upon him. After half-an-hour's unconsciousness it was found that a set of

artificial teeth which he had been wearing was missing, and it was assumed that he had swallowed them. Laryngoscopic examination long after revealed the presence of the foreign body, and it was removed successfully as above mentioned.

J. Macintyre.

Heymann.—*On Fractures of the Larynx.* Verein für innere Medizin in Berlin, Meeting, Oct. 24, 1892.

THE author showed a case which he had seen eight hours after the traumatism. The patient had fallen against his bed. He had some dyspnœa and pain and difficulty in swallowing, but no grave symptoms. The external examination was not very painful. The right arytenoid was enlarged and œdematosus, and covered with a sanguineous siccillation. The cricoid cartilage was swollen and infiltrated. The right vocal band was immobile and in the cadaveric position. The author proved that there could only be in this case a fracture of the larynx, and agreed with Arbuthnot Lane, who says that very many laryngeal fractures cause only slight symptoms. Treatment with ice and morphia ended in cure.

The author also showed a patient with a membrane in the anterior part of the larynx caused by tracheotomy performed on account of diphtheria seventeen years before.

Michael.

Kuh.—*A Case of Suffocative Laryngo-Tracheitis, and a Method of Immediate Relief.* “Med. News,” April 15, 1893.

THE author describes a case where there was accelerated and stridulous respiration with cyanotic face; there was also a gurgling sound of advancing and receding mucus in the trachea. The treatment consisted in what has been described by the author as a topical treatment of bronchitis (“Med. News,” March 11). He states that by causing the patient to inhale deeply he was able to spray into the parts so efficiently that the tenacious cohesive discharge was ejected. Recovery took place.

J. Macintyre.

Eisenmenger (Wien).—*Maydl's Tamponing of the Larynx.* “Wiener Med. Woch.” 1893, No. 5.

FOR tamponing of the larynx during operations on the mouth and pharynx as Maydl proposed (see the report in this Journal), the author applies a Schroetter hard rubber tube, combined with a Trendelenburg balloon.

Michael.

Fischer (Kreuzlinzen).—*Foreign Bodies in the Bronchi.* “Correspbl. für Schweitzer Aerzte,” 1893, No. 9.

A PATIENT, twenty-six years old, while eating soup, inspired a little piece of bone. He became dyspneic for a short time, but the condition improved, and he could follow his occupation. Some days later he had a slight stridor during respiration, and his condition deteriorated more and more. He became feverish, and developed cough and palpitation. Over both lungs patches of inflammation were found. After some months the patient was suddenly attacked with severe cough, ending in the expectoration of the bone, and followed by discharge of pus. Cure resulted.

Michael.

Schimmelbusch (Berlin).—*Plastic Operations for Tracheal Defects.* XXII. Congress der deutschen Gesellschaft für Chirurgie, Meeting, 12th to 15th April, 1893.

(1) A PATIENT, nine years old, had diphtheria in her second year, and was tracheotomized. There has since been a stenosis of the larynx and defect of the trachea. By declination of the head the child could close the defect, which was four centimetres long, and could speak with a loud voice.

(2) In a second case the defect had an extent of five centimetres. By plastic operation the defect of the skin was closed, but there remained a stenosis on account of the wall being too soft, so that it was drawn inwards during inspiration, and closed the trachea. By transplantation of the periosteum of the sternum the anterior wall of the trachea was transformed into a hard tube, and the child could speak with a loud voice. There was no difficulty of respiration when the fistula was closed.

KUSTER (Marburg) had some years ago performed resection of the defective part, followed by reunion of the upper and lower parts of the trachea.

SPRENGEL (Dresden) believes that defects especially follow inferior tracheotomy.

KOERTE (Berlin) has always performed inferior tracheotomy with good results. Defects are produced by secondary infections most commonly followed by death. He does not know any means of preventing them.

BERGMANN (Berlin) had never seen such events. He always performed superior tracheotomy. He believes that necrosis is often caused by cutting the cricoid cartilage.

Michael.

THYROID GLAND, &c.

Schnitzler, Julius (Wien).—*Etiology of Strumitis.* “Internat. Klin Rundschau,” 1893, No. 16.

BACTERIOLOGICAL examination showed in the pus of strumitis the constant presence of encapsulated diplococci.

Michael.

Ostermayer. — *Struma.* Konigliche Gesellschaft der Aerzte in Budapest, Meeting, Feb. 10, 1893.

THE author exhibited a patient cured of his struma by enucleation.

Michael.

Guttmann, P. — *Goitre Noise.* Verein für innere Medizin in Berlin, Meeting, Feb. 20, 1893.

IN Basedow's (Graves') disease, with the stethoscope, is heard over the goitre an arterial noise, isochronous with the pulse. The author exhibited two patients showing the noise. As it can be heard in all cases of the disease, it is of differential diagnostical value in relation to other cases of goitre.

Michael.

Eiselberg.—*Struma Metastases.* XXII. Congress der deutschen Gesellschaft für Chirurgie, 12th to 15th Apr., 1893.

THE author has observed adenomatous tumours in the bones, which must be regarded as metastases of goitre. *Michael.*

Cohen.—*On Some of the Trapho-Neuroses associated with Abnormality of the Thyroid Gland.* “The American Lancet,” April, 1893.

Two cases of acromegaly were reported in males aged twenty-five and fifty-one years respectively. In neither case was there any eye symptom, and both received benefit from picrotoxin, which is a vaso-motor regulator, and diminished the headache from which both patients suffered. Only *post-mortem* examination enables us to speak of *absence* of the thyroid gland, but a number of cases in which it could not be demonstrated, and in which symptoms of acromegaly, Raynaud's disease, and Weir Mitchell's erythro-melalgia were present were described. Other cases in which thyroid atrophy existed were hypertrophic osteo-arthropathy, scleroderma with muscular tremors and mental changes in an old woman, and Raynaud's disease in an old woman. In the last patient changes in one finger resembled acromegaly; in another, rheumatoid arthritis; and in another, those of sclerodactyle. In hypertrophic conditions of the gland it was held that the essential elements of the gland were diminished, and the hyperplasia of its non-essential anatomical elements in no way prevented the symptoms of atrophy from manifesting themselves. Intermittent enlargement of the thyroid was noted, and certain urinary troubles accompanying Graves' disease, such as occasional haematuria and haemoglobinuria, lithuria, and oxaluria and albuminuria. These and other symptoms met with are nervous phenomena, and are to be classed with blushing, migraine, angio-neurotic œdema, urticaria, erythema nodosum, local syncope, etc.

The connection of rheumatism with Graves' disease, and the heredity of both, are too frequent to be mere coincidence. It was suggested that feeding with fresh thyroids ought, theoretically as well as practically, to be of use in these varying troubles associated with thyroid abnormality.

B. J. Baron.

Eiselberg (Wien).—*On Vegetative Disturbances following Extirpation of the Strumous Gland in Sheep.* XXII. Congress der deutschen Gesellschaft für Chirurgie, Meeting, 12th to 15th April, 1893.

OF three sheep, two were operated upon. The control sheep after six months had a weight of twenty-five kilogrammes; the operated sheep a weight of fourteen and ten kilogrammes. *Michael.*

Kronlein.—*Goitre.* Gesellschaft der Aerzte in Zurich, Meeting, Dec. 3, 1892. (*Vide* the report in this Journal.)

SCHULER remarked that a quarter of the goitre must be preserved in order to prevent cachexia strumipriva. Of seventy cases of total extirpation, seven to eight per cent. have been followed by cachexia. His indication for operation in most cases was dyspnœa. The author also mentions some details as to the method of operation.

BRUNNER asked if in suppurative goitres the wall of the cyst should also be extirpated.

KRONLEIN believed it dangerous on account of the possible propagation of the infection.

SCHULTHESS remarked that congenital goitre is often combined with dyspnoea, which may also be caused by an enlarged thymus.

LUNING had observed a case of sudden death in a patient with goitre at the commencement of narcosis. It might have been chloroform-death.

MÜLLER believed that in ten per cent. of all goitres operation is indicated.

FORCK believed that even bad cases can be cured by internal application of iodine.

Michael.

Sheild, Marmaduke (London).—*Congenital Cystic Hygroma of Neck treated by Dissection and Iodine.* “Lancet,” Jan. 7, 1893.

THE tumour was an ovoid, strikingly translucent, soft, cystic swelling the size of a hen's egg situated in the posterior cervical triangle of a child of one year and seven months. It had existed at birth, but was then smaller. Tapping had been performed twice. There was a contained solid nodule, the size of a marble, apparently attached to the sternomastoid. The skin, after a longitudinal incision, was dissected off the cyst as far as both muscles. The cyst was then opened, and found—as expected—to extend through the fascia close to the carotid sheath. The superficial portions were removed, and the deeper ones syringed out with equal parts of iodine and water. After considerable constitutional disturbance the child recovered, with very little of the tumour remaining. Mr. Sheild points out the need for remembering the depth of the deeper parts of these growths, quoting Mr. Holmes' opinion that they originate in bulk beneath the fascia, the superficial parts being hernial protrusions. He recalls Mr. Bland Sutton's suggestion that they may be representative of the laryngeal pouches of some monkeys.

Dundas Grant.

E A R.

Schneider.—*On the Influence of Disease of the Ear upon the Mental and Physical Development of the Child.* “Med. News,” April 8, 1893.

THE author points out that the primary factor in mental development, besides hereditary and congenital gifts, is dependent upon the accuracy of the constitution of the special senses, and the impressions which the infant brain receives through these senses from its environment, provide the material out of which is formed perception and conception. The fundamental value of the special senses for the development of man is already conceded, and, therefore, the more accurate the development in the special senses the higher and more accurate will be the perception. The author supports his theory by reference to statistics of Bezold, Von

Reickard, Weil of Stuttgart, and others. The paper is well worthy of consideration.

J. Macintyre.

Tuttle, Albert H. (Cambridge, Mass., U.S.A.).—*Some Observations bearing on the Treatment of Nasal and Middle-Ear Affections.* “Boston Med. and Surg. Journ.” April 13, 1893.

As a simple test for perforation of the membrane, he mentions the insertion of oil—benzoinol—in the meatus, and the use of Politzerization, by which the oil is driven out if a perforation is present. He states that if a spray of oil is directed into the mouth or nostrils during a forced expiration, and the mouth and nostrils maintained closed at the same time, the spray will pass into the middle ear, and, if there is a perforation, it may be seen emerging from the opening. [It does not follow that because the spray enters a cavity having a counter opening that it will do so in face of the compressed air contents when no such opening is present.—ED.] By holding the head on one side inflammatory products gravitate over the perforation, and their removal is facilitated by the act of blowing through the Eustachian tube.

Dundas Grant.

Greene, H. E. (Crawfordsville, Ind., U.S.A.).—*Foreign Body in the Tympanum.* “New York Med. Journ.” March 25, 1893.

THE patient was struck on the ear by the branch of an alder bush, became dizzy, and experienced pain for a few hours. This ceased, but the writer found on inspection a faint streak behind the handle of the malleus. Three weeks later there was a discharge, and a small perforation was seen *below the original seat of the injury.* After another month there was considerable granulation growth. One day during the syringing a small black speck came away, and proved to be a scrap of bark. This strengthened Dr. Greene's suspicion that there was a foreign body present. He enlarged the perforation, and directed a fine stream into the tympanum. A dark object presented itself at the opening, was removed with forceps, and turned out to be a twig of alder, ten millimètres long, and two millimetres in diameter.

Dundas Grant.

Williamson, C. F. (Horley).—*An Uncommon Cause of Deafness.* “Lancet,” Jan. 21, 1893.

IN a case of otorrhœa, with deafness and neuralgia, there was found in the meatus the body of a blow-fly, without wings. The patient had eighteen months previously been holding the insect to his ear by means of the wings. These broke off, and the fly crept into the meatus, causing earache for one night.

Dundas Grant.

Wilson (Detroit).—*Vibratory Massage of the Middle Ear by means of the Telephone.* “New York Med. Journ.” Feb. 25, 1893.

THE author has used the hand telephone of Bell, the diaphragm of which can be set into powerful vibration by the interrupted current from an ordinary faradic coil, for the carrying out of the vibratory treatment of middle-ear troubles. A great variety of sounds can be produced by this means, by altering the rate of interruption of the current and varying the

number of cells employed. The *séances* lasted from five to fifteen minutes, and vibrations of the greatest intensity were used where there was the greatest impairment of hearing.

Five cases are reported, and in three some improvement in the tinnitus was noticed, but in no case was there any improvement in the hearing.

B. J. Baron.

Scott, Bernard, and Lane, W. Arbuthnot (London).—*Treatment of a Case of Pyæmia resulting from Disease of the Middle Ear.* “Lancet,” Jan. 21, 1893.

A CASE of chronic middle ear-disease, with headache, mastoid tenderness, rigors, and rise of temperature. The mastoid was opened, a subdural abscess was evacuated, the contents of the middle ear were scooped out, and the internal jugular vein was ligatured in the neck. After this there was no flow of fluid blood on puncture, showing that the sinus was thrombosed on the torcular side of the ligature. The inflamed wall of the sinus was cut away, and the contained conical clot drawn out. Plugging with iodoform gauze was then practised. The temperature never rose again above ninety-nine degrees, and a good recovery ensued. Mr. Lane strongly urges the removal of the clot in addition to the ligature of the jugular vein, recommended by Victor Horsley in 1886. He believes that extension along the petrosal and lateral sinuses is thus more effectually prevented.

Dundas Grant.

Pritchard, Urban (London), and **Cheatle, Lenthal** (London).—*Pyæmic Thrombosis of the Lateral Sinus following Acute Otitis—Sinus Opened and Internal Jugular Vein Dissected Out—Recovery—Remarks.* “Lancet,” March 4, 1893.

A GIRL, aged thirteen, had been suffering for eight days from left-sided ear- and headache, with early vomiting, repeated rigors, and twitchings of the opposite leg at night. In early childhood she had had otorrhœa for some time, but it had completely stopped, and the membrane was whole but congested. There was no bulging and no mastoid swelling. The upper part of the neck was swollen and tender, but not fluctuating. Mr. Cheatle opened the mastoid, and found it full of old caseous matter without fœtor, and, as this did not seem sufficient to explain the symptoms, he enlarged the opening upwards, backwards, and downwards. The dura bulged and was incised, and the temporo-sphenoidal lobe was explored without any pus being found. The lateral sinus was found (by hypodermic needle) to be occupied by a fetid thrombus. The sinus was therefore slit up and cleansed, and the internal jugular vein was ligatured. Temporary improvement took place, but, as the temperature rose again gradually, it was determined to dissect out the jugular vein, and also to enlarge the opening in the skull backwards, so that the sinus might be cleared until free bleeding should come from above. This was allowed to wash out the sinus, and was then controlled by pressure. Rapid improvement and complete recovery ensued. Dr. Pritchard points out that the condition of the mastoid contents indicated an old-standing latent disease of that part. [The mode of infection of the sinus is not indicated, as no carious perforation of the posterior surface of the petrous bone nor of

the bony groove for the lateral sinus is mentioned. This is especially striking in view of the absence of foetus of the mastoid contents.—ED.]

Dundas Grant.

Parkin, A. (Hull) — *Two Cases of Aural Pyæmia Treated by Operation.* “*Lancet,*” March 11, 1893.

A CHILD, nine years old, who had had scarlet fever at the age of three, and had suffered from headaches ever since, complained on November 27th of earache, and was said to have been unconscious for several nights after. Otorrhœa came on and sickness occurred. After a few days there was diarrhœa, followed by several attacks of shivering, then dulness, stupidity, and pain on the affected side (right) of the head. There were signs of pulmonary and hepatic disturbance. On incision, pus exuded from the mastoid foramen. The antrum was then opened and the tympanum cleared out. The lateral sinus groove was opened and extra-dural pus was found, the sinus being obviously thrombosed. The internal jugular vein was therefore ligatured low down in the neck. The lateral sinus was slit open and cleared out. There was one rise of temperature to 104 degrees about ten days later, accompanied by œdema of the eyelids, but this subsided, and a complete recovery took place.

The second case was that of an infant of eleven months. Three months previously she had had scarlet fever, and, one month before observation, a discharge from the left ear, followed by facial paralysis, followed by pain in the head and several fits. When admitted she was semi-conscious, somewhat cyanotic, the temperature was subnormal, and there was a swelling behind the left mastoid, which, when opened, was found to communicate through the mastoid foramen with the interior of the skull. The treatment for sinus phlebitis was carried out in its entirety, and recovery followed.

[Sinus phlebitis is usually indicated by repeated rigors, and the absence of these in the second case certainly added to the difficulty of the diagnosis. It would be important to know whether in young children the “fits” may be accepted in such cases as equivalent to rigors. In any case the course of events shows the importance of careful exploration and of a large incision, rather than a simple puncture, when there is any evidence of cerebral disturbance.—ED.]

Dundas Grant.

Jack, Fred. L. — *Remarks on Two Cases of Excision of the Stapes.* “*Boston Med. and Surg. Journ.,*” April 13, 1893.

IN very few cases has there been any appreciable change for high tones, the improvement is almost entirely for the voice. Success is greatest in those cases in which the stapes has become fixed by plastic inflammation. In one case the bone was removed on account of its carious condition to cure the discharge (which took place), and without any thought of improving the hearing. The patient could afterwards hear very well. In the second case there was remarkable power of hearing after removal of the stapes in both ears.

Dundas Grant.

Black, Melville. — *Removal of the Drumhead and Ossicles in Diseases of the Middle Ear.* “*Med. News,*” April 15, 1893.

IN chronic suppurative diseases of the middle ear which do not improve

under the usual methods of treatment, dead bone is as a rule the cause of the chronicity. In "attic" suppuration the body of the malleus and the whole of the incus are very liable to become carious owing to poor drainage and the inability to cleanse thoroughly.

Case 1 : Mrs. J. H. had had suppuration from the right middle ear for about twelve years. The membrane was perforated above and slightly posterior to the short process of the malleus. A granulation protruded through the perforation. The discharge was free and very offensive. The watch was only heard on pressure. Under chloroform the drumhead and the malleus, and what was left of the incus, were removed. The upper parts of the annulus tympanicus and the upper portion of the tympanum were necrotic. These parts were scraped with a sharp curette. Pain in the ear and a certain degree of dizziness lasted for about three days. Suppuration was entirely arrested in the course of a few months. The hearing power was not improved.

Case 2 : Mr. J. S. M., aged eighteen, had had right-sided suppuration for about eight years. The watch was heard on contact. A large perforation existed in the membrana flaccida. The discharge was scanty, but offensive. The operation was performed under chloroform. The malleus, which was extremely friable, was removed piece meal with a pair of Sexton's forceps. The incus was not found. Necrosed bone was found in almost all parts of the tympanic cavity. These areas were carefully scraped with the curette. The patient was finally dismissed cured, but without any improvement in his hearing power.

Case 3 : D. L., aged twenty-five, had suffered from his ears for about eight years. He could hear the watch when pressed against his right ear, but not at all upon his left side. He heard much better in a noise. Bone conduction was better than aerial. The drumheads were sunken and opaque. Under chloroform the drumhead and the ossicles were removed. The drumhead healed completely over. An aperture was accordingly made in it with sulphuric acid, and further regeneration was prevented by the application of trichloracetic acid to the edges. The amount of benefit from the operation was, however, very small.

Case 4 : M. A. C., aged thirty-three, had been troubled with his ears for thirteen years. The hearing upon the right side was very bad, the watch not being heard at all. There was also severe tinnitus. The right drumhead and the ossicles (malleus and incus) were removed. Hearing increased from nothing to contact. The tinnitus was only partially relieved.

Case 5 : E. W. P., aged fifty-nine, had suffered from his right ear for about thirty years, and from his left ear for about twenty years. The watch was not heard by either ear. There had never been any suppuration. The right drumhead and ossicles were removed. Slight improvement in hearing followed this operation.

W. Milligan.

REVIEWS.

Kirchner, Wilhelm. — *Handbuch der Ohrenheilkunde für Aerzte und Studirende.*

Von Dr. WILHELM KIRCHNER, Professor der Ohrenheilkunde und Vorstand der Otiatrischen Universitäts Poliklinik in Würzburg. Vierte Auflage. Mit 42 Abbildungen in Holzschnitt. Berlin: Verlag von Friedrich Wreden. 1892. ("Handbook of Diseases of the Ear for Practitioners and Students." By Dr. WILHELM KIRCHNER, Professor of Otology, and Principal of the Otological University-Policlinic in Würzburg. With 42 illustrations in wood-engraving. Fourth Edition. Published by Friedrich Wreden. Berlin, 1892.)

IN two hundred and nineteen pages of clear print Dr. Kirchner gives a reliable and methodical account of otology, such as will satisfy the requirements of most conscientious practitioners. The work has since 1885 gone through a sufficient number of editions to show that it has been found valuable by those for whom it was written, and there is no doubt that it will long continue to hold its position in the esteem of the German-reading members of the profession who desire to acquaint themselves with the subject which is here so succinctly and exhaustively treated. A very systematic account is given of the various methods of treatment devised for the different affections, none being left out, but at the same time it is not always easy to determine which the author particularly recommends, so that in the endeavour to be complete the individuality of the writer is somewhat obscured. In many places the teaching experience of the author makes itself evident. Thus the description of the appearance of the normal membrane under inspection is graphically described, and the difficulties which the beginner is likely to meet with (such as mistaking the roof of the meatus for the membrane, or an indrawn for a bulging piece of membrane, etc.) are plainly detailed. The tuning-fork tests receive due attention, and the important fact is brought forward that cases occur in which osseous conduction may be almost extinct, but in which it returns after forcible inflation of the tympanum. No explanation of this is given, and we know of none which is other than speculative, but we can bear witness to the occasional occurrence of the phenomenon.

The treatment of furuncle of the meatus is of the highest interest to the practical aurist, and Dr. Kirchner devotes several pages to its consideration. He is in favour of local depletion and the use of warm antiseptic instillations, notably of a two per cent. solution of acetate of alumina, introduced into the meatus by means of a small gauze tampon or spirit-lamp wick, while a warm fomentation, covered with gutta-percha tissue, is applied over the auricle. The other well-known methods are described, and as regards incision he advises its adoption, if after the use of warm applications for one or two days the use of a probe enables one to detect a suppurating spot in the meatus. He is disposed to think that

when incision does not give relief it is because it has not been made in the right place. The occurrence of limited caries and granulation-growths at the seat of a furuncle is pointed out as comparatively frequent. An account of the affections of the membrana tympani makes an interesting chapter, in which the primary diseases of the structure receive a greater prominence than we should be disposed to give them. Perforation from without is referred to as easily taking place, but its diagnosis from perforation from within is not made very clear, as is perhaps inevitable from the nature of things. In diseases of the Eustachian tubes the writer makes much use of local applications per catheter, and also of bougies. The muscles of the tube are well described and unusually intelligibly illustrated. The all-importance of attention to the naso-pharynx is insisted on. The acute and chronic diseases of the tympanum are fully described, and here again the methods of treatment are enumerated with a profusion which is almost embarrassing. The injection of medicated liquids through the Eustachian tube into the tympanum is described with a degree of detail that is demanded by a desire for completeness rather than by the value and safety of the method. The mastoid operation, as practised by Schwartze, is fully set forth and recommended in the typical, acute mastoiditis, Kuster's operation, on the other hand, in chronic, old-standing cases of caries, cholesteatoma, or necrosis. Stacke's modification is, however, not referred to. In chronic suppurations, Kirchner makes use of a tympanic tube like Hartmann's or Milligan's, but with a glass bulb in the supply pipe. This bulb is charged with a solution of 0·5 per cent. of carbonate of soda, and 0·02 per cent. of liquor sodæ, which is alternately blown into the tympanum and sucked out, so that the cavity is thoroughly cleansed. The "cholesteatoma question" is discussed, and preference given to the view in favour of its inflammatory origin. The author has apparently studied simulated deafness and "aids to hearing" with considerable zeal, so that by his power of logical arrangement he has rendered these usually unattractive subjects exceptionally interesting. The work on the whole is a marvel of condensation and completeness. It will well repay careful study. The anatomical and physiological introductions to the description of the diseases of the several parts are most lucid, and quite sufficient for the purposes of the practitioner. Further editions are sure to be called for.

Dundas Grant.

Wagner (Halle).—*Schemata der hypokinetischen Mobilitätsneurosen des Larynx, zum laryngologischen Unterricht.* ("Schemata of the Hypokinetic Neuroses of Mobility of the Larynx, for Laryngological Instruction." With Woodcuts, and three Lithographic Tables. Sixteen pages. Leipzig : Langkammer. 1893.

THE difficulties of the laryngological tyro in the understanding of the different forms of paralysis of the glottis have induced the author to publish this scheme. He distinguishes the positions of the vocal cords in deep and forced inspiration, in ordinary respiration, in the cadaveric position, in the median or phonation position, and in the adduction position between the cadaveric and median position. A woodcut shows the demonstration of the larynx, a phantom by the aid of which the

different positions can be produced and demonstrated. The first table deals with the different positions in the healthy larynx ; the second with the paralyses of single muscles ; the third with those of muscular groups. Every laryngoscopical picture is accompanied by a schematic drawing, showing the effect of the muscles. A concisely written text gives a good explanation of the drawings. Without doubt, the little book will be of great assistance in the instruction of these laryngological problems.

Michael.

Transactions of the Fourteenth Annual Meeting of the American Laryngological Association, June, 1892. Appleton & Co. 1893.

THE volume just to hand contains many important papers, most of which have been abstracted already in this Journal. We need only say that this volume is as worthy as its predecessors, and fully maintains the standard of excellence of work done by this well-known Association. No laryngologist can afford to be without the Transactions of the American Laryngological Association upon his library shelves.

R. Norris Wolfenden.

ASSOCIATION MEETINGS.

PROCEEDINGS OF THE LARYNGOLOGICAL SOCIETY OF LONDON.

Ordinary Meeting, April 12, 1893.

P. McBRIDE, M.D., Vice-President, in the Chair.

E. CLIFFORD BEALE, M.B., }
SCANES SPICER, M.D., } Secretaries.

Present — 30 Members and 2 Visitors.

The following candidates were elected Members of this Society :—

JAMES DONELAN, M.B.	JAMES DAVISON, M.D., M.R.C.P.
T. J. KIRK DUNCANSON, M.D., F.R.C.P.Ed.	F. G. HARVEY, F.R.C.S.Ed.
	WILLIAM PERMEWAN, M.D., F.R.C.S.

The following candidates were proposed for election :—

R. S. CHARSLEY, Slough.
RICHARD LAKE, Barnes.
HERBERT TILLEY.

A number of electric, gas, and oil lamps, suitable for laryngoscopic examinations, were exhibited by Messrs. Schall, Mayer and Meltzer, W. S. Benson, and others.

The opinion of the Members present being strongly in favour of the electric light, Dr. Felix Semon announced his intention of presenting twelve electric lamps to the Society for use at ordinary meetings.

A letter from Signor Manuel Garcia was received, expressing his

acceptance of Honorary Membership of the Society conferred on him at the first meeting.

The following clinical cases were exhibited :—

Dr. DUNDAS GRANT brought forward a *Case of Empyema of the Frontal Sinus.*

J. M., aged thirty-five, a labourer, had been first seen in July, 1892, complaining of frontal headache and a discharge from the left nostril, dating from an attack of influenza in the previous January. The pain was generally relieved by the outflow of a quantity of creamy pus, which took place most markedly on first rising in the morning. The pus was seen to ooze from the middle meatus, the middle turbinated body being swollen. Transillumination and Lichtwitz's exploratory irrigation showed the absence of pus in the antrum. Cocaine gave some relief to pain, but the symptoms continued in spite of intra-nasal treatment by antiseptic remedies. The sinus was therefore opened just on the margin of the orbit, internal to the supra-orbital notch, about four weeks ago. Antiseptic fluids were syringed through the opening, escaping by the nose. A few days later a fine Eustachian catheter was introduced through the frontal perforation and into the upper orifice of the fronto-nasal canal. Through this a long pewter wire was "paid" till it appeared at the nostril. The catheter was removed and the wire left *in situ*. Over this an india-rubber drainage-tube was slid right down to the nostril and was left in that position, the pewter wire being removed. The pain disappeared, but there remained some erythema round the opening. The foetor of the discharge had now quite subsided, and the quantity was much diminished. The drainage-tube was removed after a few days, and there was now merely a pewter wire to prevent the aperture from closing. To-day (April 12th) it had been possible to irrigate the sinus through the nasal orifice by means of Lichtwitz's frontal sinus canula.

Mr. W. R. H. STEWART referred to a case now under his care in which the frontal sinus was trephined and a probe passed into the nose. The empyema was unilateral, and the two sacs could be plainly seen at the time of the operation, the one normal and the other blocked. The patient is now quite well.

Dr. ADOLF BRONNER (Bradford) recorded a *Case of Bilateral Affection of the Frontal Sinus*, in which both sinuses could be syringed out from the nares with a bent double tube. He used the chisel in preference to the trephine in such cases, and laid great stress on the importance of maintaining strictly antiseptic after-treatment.

Dr. DUNDAS GRANT, in reply, urged the adoption of trephining in the middle line only in cases of doubt as to which sinus was affected, and agreed that the gouge and mallet were preferable to the trephine in other cases.

Dr. DUNDAS GRANT showed a *Case of Submucous Hæmorrhage and Angioma of the Vocal Cord*, occurring in a young lady aged twenty-four, who had been first seen in October, 1891, on account of occasional sudden aphonia and hoarseness at varying intervals for four years.

The attack was generally excited by sneezing or some vocal effort, and lasted about a fortnight, the subsidence being gradual. By the laryngoscope the left vocal cord appeared to be covered by a loose layer of blood-clot which projected over the opposite cord during phonation. It was not dislodged by coughing or manipulation, and was obviously situated under or in the mucous membrane. There was no evident haemorrhagic or other diathesis predisposing to the condition. Seen again in July, 1892, after a week's aphonia, the haemorrhage was found to be chiefly confined to the junction of the anterior and middle thirds of the cord. Eight days later a bright purple tumour, about the size of a hempseed, could be readily seen, attached by a broad base to the edge and upper surface of the cord. In spite of the presence of the tumour the voice was now very little impaired. Treatment by applications of chloride of zinc appeared to have caused diminution of the tumour, but so that it was questionable whether more radical measures were called for.

Mr. CRESSWELL BABER mentioned a similar case under his own care, in which the tumour appeared to be flatter than in Dr. Grant's case. Astringent treatment had been of no avail, and he was inclined to employ the galvano-cautery.

Dr. FELIX SEMON thought that the tumour might be safely removed with forceps, and recommended Dr. Grant's own instrument. Contrary to what might have been expected, the haemorrhage in such cases was usually but slight.

Dr. DE HAVILLAND HALL showed a *Case of Inherited Syphilis* in the person of W. W., aged sixteen, an iron moulder, seen first at the Westminster Hospital in May, 1890, suffering from pain in the throat and dysphagia. The left tonsil was enlarged and its surface ulcerated; the pharynx ulcerated and covered with yellowish exudation. Glands at angle of jaw enlarged. History of thrush and rash on buttocks shortly after birth. Eyes and teeth not affected—no linear cicatrices. The case improved rapidly under iodide of potassium. The ulceration recurred in December, 1891, and October, 1892.

Dr. DE HAVILLAND HALL showed a *Case of Syphilis of the Tonsil*. Primary syphilis had occurred twenty-five years ago. The patient had complained of sore throat since December, 1891, and had been seen first in August, 1892. The right tonsil was enlarged, an ulcerated patch on the anterior pillar of the fauces. Cervical glands enlarged. Marked improvement, both to the pharynx and the gland, had taken place under iodide of potassium and hyd. c cret. On April 5th, 1893, fresh ulceration had occurred.

Mr. BUTLIN thought that the disease was probably malignant, grafted upon syphilitic disease of old standing.

Dr. CLIFFORD BEALE referred to a similar case in which almost identical morbid signs had given rise to much doubt in diagnosis. Removal of a small piece of the granulating edge of the ulcer for microscopical examination proved the presence of epithelioma.

Dr. HALL thought that the undoubted improvement under specific

remedies showed the syphilitic nature of the case, although many features of malignant disease were present.

Mr. MARK HOVELL showed a *Case of Lupus of the Larynx and Pharynx.*

The patient, a clerk aged seventeen, had been seen first at the London Hospital suffering from dyspnœa. Tracheotomy had to be performed in May, 1890. Treatment by cauterization had been applied for a long time both before and after tracheotomy. At latter end of 1891 Koch's remedy was tried, and the patient received about fifty injections and was much improved by the treatment. Since that time no treatment had been applied, and the disease appeared to have become quiescent.

Caries and Necrosis of Nasal Bones and Superior Maxilla—Abscess of Septum.—Empyema of Left Antrum.

Dr. FELIX SEMON showed a case of a married woman, aged twenty-four, who had first suffered five years ago from sore throat of two and a half years' standing, apparently specific. She had been married five years, and had had two healthy children and no miscarriages. Nothing indicative in the family history. In June, 1892, pains in the head and nose, the latter being much swollen and obstructed, with slight offensive discharge from the left side. Empyema of the left antrum was diagnosed, and the cavity opened through the alveolus and drained. In February and March of the present year small fragments of bone came away from the mouth. In March, 1893, the nose was greatly swollen throughout its entire length, the superficial skin reddened, and much purulent discharge from the nostrils. Two symmetrical swellings, clearly communicating with one another through the perforated septum, almost filled the nostrils. These were opened and much offensive pus released, but the abscesses quickly refilled, though the walls are now harder than at first. On pressure over the broad bridge of the nose much creamy pus exudes between the upper lip and the superior maxilla. Teeth are decayed. In left side of hard palate at level of second molar, just within the alveolar margin, is a small perforation which is said to be getting smaller lately. Bare but fixed bone can be felt in its neighbourhood. Papular eruption on legs and scaly patches on chest and forearms.

Tabs Dorsalis. Laryngeal and other Crises. Bilateral Paralysis of Abductors of Vocal Cords. Complete Motor Paralysis of Palate.

Dr. FELIX SEMON showed a patient, aged thirty-four, formerly a letter-sorter in the post office, whose illness had lasted five years. Had syphilis twelve years ago, followed by a sore throat but no rash. First symptom of present illness began with vomiting after meals, weakness of legs, and diarrhœa, becoming gradually worse. Voice failed about the same time, and choking attacks with crowing dyspnœa occurred. Dysphonia, with salivation, occasional regurgitation of liquids through the nose; shooting pains in the limbs, occasional gastric pains, difficulty and incontinence in micturition had all been present during the progress of the case. There was now complete abductor paralysis on the left side, incomplete on the right, with beginning participation of internal

thyro-arytenoid muscles (slight excavation of vocal cords), complete motor paralysis of soft palate, fibrillar twitchings of tongue. Wasting of temporals and masseters with no perceptible action on either side. Difficulty in articulation. Cannot whistle. Mouth kept constantly open. Pulse 120 to 124. Right hand numb, but not left. Ataxic gait. Knee-jerks not elicited. Paralysis of left sixth, weakness in outward movement, right, and in downward movement left. Pupils do not react to light and (?) to accommodation. Considerable anaesthesia of face, slight in hands. Optic discs *nil*.

Tuberculosis of Larynx and Lung.

Dr. SCANES SPICER showed a patient, K. T., aged twenty-one, suffering from hoarseness of sixteen months' standing, the result of tubercular infiltration of the left side of the larynx, with a clean-cut crateriform ulcer on the left pyramid extending to the posterior wall. The left vocal cord appeared slit longitudinally, and there was marked oedema of the left pyramid. The right vocal cord was simply reddened. Signs of phthisis at the right apex.

Dr. SCANES SPICER also showed a patient, aged twelve years, a schoolboy, who had suffered for the last five years from recurrent *Papillomata of the Nostrils and Gum*. Both nostrils had been blocked by warty growths which had been removed and nitric acid applied to bases, but the growths had recurred once or more every year. The upper gum had been similarly affected, and had been curetted and acid nitrate of mercury applied. Microscopic examination of the growth had been made by Mr. Jackson Clarke, who reported it as a typical papilloma.

Mr. BUTLIN expressed the opinion that the condition of the nostril at present was very suggestive of lupus.

Dr. DUNDAS GRANT also thought that the disease might have been of lupoid origin, and referred to a similar case.

Dr. W. HILL asked whether syphilis had been suspected, and compared the warty growths to those sometimes seen on the vulva and in the ear in syphilitic cases.

Dr. SPICER replied that there had been nothing indicative of either syphilis or lupus in the earlier stages of the case.

Multiple Sarcomata of Naso-pharynx and Tonsils.

Mr. W. R. H. STEWART exhibited a patient, a fireman, aged twenty-eight, who had been first operated on for sarcomatous growth behind the right ear in November, 1891, and February, 1892. In August, 1891, difficulty of breathing was first noticed. In the following month the patient was operated on for post-nasal growths at Golden Square, a large amount being removed. These recurred and were again removed with both tonsils. The growths were tough and difficult to tear away with the forceps, and there was considerable haemorrhage. When seen in November, 1892, there was a larger, rounded, and somewhat elastic swelling in the situation of the left tonsil and side of palate, and in the centre of this enlargement a sloughing ulcer with hard edges. The right tonsil was occupied by a smaller swelling—naso-pharynx partially blocked by similar

rounded growths ; smaller ones extending down the left glosso-epiglottic fold ; small glands on left side : no syphilis. A portion removed and placed under microscope showed sarcoma. In the early part of January, 1893, when seen again the growths had all increased, those in nasopharynx extending as far as the finger would reach. Nasal respiration almost stopped. Slight deafness. Patient said that last November some lumps came away from the tonsils. These were too dried up to make anything of. Epiglottis, larynx, and oesophagus free. When seen that morning the swellings on both sides were much enlarged, ulcerated, and sloughing. A hard mass under angle of jaw on right side. Turbinate mucous membrane hypertrophied. Considerable haemorrhage said to have occurred two nights ago. Patient was losing flesh rapidly.

Dr. BRONNER asked if arsenic had been used in the case, and referred to an instance of cure under arsenic when recovery seemed hopeless.

Mr. BUTLIN thought that if arsenic were used at all it should be given in large doses.

Mr. STEWART stated that the case had been treated with arsenic in small doses, and expressed his intention of using it in larger quantities.

Chronic Laryngeal Tuberculosis.

Dr. W. MCNEILL WHISTLER introduced a patient, aged thirty, who had been under observation since October, 1880, suffering at first from sore throat and dysphagia, the voice reduced to a mere whisper, constant cough with muco-purulent expectoration, anaemia, emaciation, extreme weakness, and high temperature. The larynx at that time presented every appearance of severe tubercular infiltration and ulceration. In the lungs there was evidence of early disease at both apices. Under sedative applications to the larynx followed by more stimulant treatment later on, coupled with the appropriate treatment for the general condition, the patient showed marked improvement. Soda and borax with carbolic acid, astringent and antiseptic lotions containing sulpho-carbolate of zinc and boracic acid, in glycerine and water, applications of eucalyptol in adepsine oil, together with insufflations of morphia, comprised the chief local medication. In four months the ulceration was nearly healed, and there was marked diminution of the infiltration. The case was shown at the International Congress in 1881 with the ulceration completely healed, and the swelling was so far reduced that a free view could be obtained into the trachea. For several years afterwards the patient remained in fairly good health, taking cod liver oil and using creosote inhalations at intervals, and had now been steadily following his employment for nearly ten years. In April, 1892, symptoms of phthisis again began to appear, but soon subsided under treatment. He had now neither pain, cough, nor hoarseness. The laryngoscopic appearance at present showed a limited loss of substance of the epiglottis, the vocal cords thickened, the right cord being reddened. Cicatricial thickening of the left ventricular band, and a narrow web springing from the vegetations on the interarytenoid fold extending to the right and attached to the posterior

extremity of the right vocal cords. Free movement of the cords both in adduction and abduction.

The Inaugural Dinner of the Society was held after the meeting at Limmer's Hotel, Dr. Felix Semon presiding. Signor Manuel Garcia, the inventor of the laryngoscope, was present, and received an ovation as the first Honorary Member of the Society. Dr. McBride, Mr. Butlin, Mr. Victor Horsley, and the Chairman were the principal speakers, the proceedings being greatly enhanced by music and songs contributed by the Chairman, Dr. Dundas Grant, Dr. Jacob, and Dr. W. Aikin.

THE SOCIETY OF LARYNGOLOGY, OTOLOGY, AND RHINOLOGY OF PARIS.

Meeting, December, 1892.

Dr. CARTAZ. *On Complete Adhesion of the Arch of the Palate and Pharynx.*

In this condition functional disturbances are at their maximum; speech, deglution, and respiration being profoundly modified. The treatment of these conditions has not much progressed during the last fifty years. It is easy to detach the parts, but difficult to preserve the opening through these indurated cicatricial masses. Many surgeons, in fact, have abandoned all hope of cure. The author has collected records of thirty-seven cases of total symphyses, and gives particulars of one case of his own, in which no operation was, however, performed.

Though these cases occur in most instances as a result of syphilis, scrofula has been accused in five cases (Hornolle), but when these facts were published the relation of scrofula with tuberculosis and syphilis was little known. Diphtheria has been mentioned as a probable cause (MacMahon), but must be quite exceptional. Lupus may very probably give rise to some cases, especially incomplete adhesions (Coulson, Lucas-Championnière, Bourdon, Hornolle, Lailler, Besnier, Tougerè, etc.).

Rhinoscleroma may cause partial adhesions.

Cases of total adhesion occur mostly in men and adults. The first symptoms are often insidious and overlooked, being merged into those of a chronic coryza, the ulceration often being manifested in the post-nasal space, pharynx, or nose and latent.

It is in the angle of the pharynx corresponding to the posterior pillar where the process most often commences, a position where ulceration may be readily overlooked. The swollen mucous membrane touches the pharynx, and unless the ulceration is arrested adhesion is the result. This is often very rapid.

In total adhesion nasal respiration is abolished, the voice becomes nasal, the throat dry, and there is almost always some nasal catarrh, due to accumulation of secretions. Taste and smell are not always abolished. Headache and neuralgias occur. The Eustachian tubes may be completely

closed by bands of cicatricial tissue. Hearing is enfeebled or lost ; in other cases there is no affection of hearing.

Operation is very difficult from pain and from fusion of the tissues and hard cicatricial bands, also from occasional and even dangerous haemorrhage. Apparatus to keep the parts open is badly supported. It is important to distinguish between a simple adhesion and those cases where this is accompanied with extensive cicatricial bands in the throat or naso-pharynx and retraction of this cavity. The former give hope of successful intervention. The operation for each individual case must vary according to circumstances, and reference is made to the autoplastic operation of Lesser (recorded in "Berliner Klin. Woch," No. 23, 1879). It is, however, a very complicated operation, very difficult, and does not appear to have been employed by any other surgeon.

The author thinks that the operation described by Nicholls (Acad. of Med., New York, Jan. 23, 1890) will give better results than operations described up to now. Nicholls has had remarkable results. Hajek perforates with a cutting sound introduced through the nose, and subsequently dilates the resected part, subsequently separating the adherent parts with a bistoury.

Albertin (Soc. des Sc. Méd. de Lyon, "Lyon Méd.," Nov. 27, 1892) lately operated upon a case in which the adhesions had been caused by a variolous angina. The adhesions were separated with a bistoury, and a prosthetic apparatus worn for a month with complete success.

Dr. Cartaz concludes that where the adhesion is simple, and without extensive cicatricial bands and narrowing of the naso-pharynx, operation can be advised, but when the naso-pharynx is a mass of hard tissues with extensive adhesions operation is inadvisable, the most that can be done being to get a perforation through which dilatation can be effected.

Dr. LUBET-BARBON had seen two cases of complete occlusion of the arch of the palate from syphilis. There was deafness and tubal catarrh. A perforation could not be maintained, and deafness recurred. He had by accident come across a case in the museum, in which there was complete stenosis of the naso-pharynx seen in antero-posterior section through the head. A small orifice amongst the fibrous tissue was recognized as the opening of the Eustachian tube, but no air passed into the ear on insufflation. Both tympanic cavities were filled with viscous serous fluid. The posterior one-third of the left inferior turbinate had disappeared, and the middle turbinate adhered to the septum. The posterior part of the vomer had disappeared, and the inferior turbinate (right side) had been destroyed completely, and the nasal fossa resembled that of an ozænic patient. There were numerous cicatricial bands in the nasal fossæ.

Dr. A. RUAULT. *On a New Method of Surgical Treatment of Tonsillar Hypertrophy.* (Partial Ablations and immediate Iodized Applications.)

In cases where tonsillotomy is indicated the author thinks this treatment to be superior, because it gives rise to scarcely any bleeding. It is superior to ignipuncture, being much less painful and without reaction,

general or local. It also gives greater precision of operation than other methods. Cryptic concretions are to be got rid of by dissection ; adhesions of the faecal pillars and tonsils are to be liberated by a special crotchet. These small preliminaries are easily performed under cocaine. Then with special and powerful forceps, devised by the author, pieces of the tonsil are picked off, the author's forceps allowing of a clean cut. The operator must guard against grasping the faecal pillars by mistake, or taking off too large pieces of tonsil at once. In three or four attempts a good portion of the surface of the gland is removed, pain and bleeding are insignificant ; the same is practised upon the other tonsil. Energetic friction is then made to the surface of the bleeding glands with a solution of iodine 1, iodide of potassium 1, distilled water 4 to 6 grammes. Sharp pain results. The patient gargles with cold water, and can then follow ordinary occupations, and take food without trouble or pain.

In a few days to a week the tonsil has largely diminished, greatly due to secondary retraction. A second sitting is then undertaken, and in the majority of cases this is all that is required. Dr. Ruault has operated now on eighty cases, and has only three times required to repeat the operation in three sittings. It is an absolute rule never to operate unless the tonsil is freed from adhesions with the anterior pillar.

Meeting, January 6, 1893.

Dr. BONNIER. *Ophthalmico-Tympanic Zona.*

In a patient, both tubercular and syphilitic, there occurred a double eruption of herpes, affecting simultaneously the ophthalmic nerve and a small part of the auriculo-temporal. Vesicles occupied the territory of the left frontal nerve ; there was a group over the eyebrow, one near the median line and close to the hair, and smaller groups near the temple. The eyelids were swollen and red, the globes normal.

As soon as pain ceased and crusts formed, the patient experienced intolerable pain in the left ear. The drum was intact, but there were six vesicles present. There were none in the meatus, face, nasal fossæ, mouth or throat. The interest of the case is in the double localization, involving both extremities of the trigeminal, with complete integrity of the intermediate regions. It throws some light upon the topography of the different ganglia which form the Gasserian ganglion.

Dr. BONNIER. *Bilious Otorrhœa.*

At the terminal stages of a severe icterus in a patient with mixed cirrhosis a very severe otorrhœa and otitis occurred.

At the commencement of the otitis the bile did not notably affect the secretions, the pus from the ear was thickened and yellowish-green ; afterwards other secretions became bile-tinged. With this the pus from the ear became greener, less thick, and gave place to an abundant flow of dark-green liquid, resembling the patient's urine and falling drop by drop from the ear. In the final stage the icterus was diminished, the patient had only a cancerous appearance, the secretions became colourless, and the pus from the otorrhœa became yellow, thick, and thready, and more and more abundant to the end.

FRENCH SOCIETY OF OTOTOLOGY AND LARYNGOLOGY.

Paris, May 12th, 13th, and 15th, 1893.

THE TREATMENT OF SUPPURATIONS OF THE ACCESSORY CAVITIES OF THE NOSE.

Dr. CARTAZ. *On Emphysema of the Maxillary Sinus.*

The study of this subject is of recent date. To-day the disease is easily recognized by unilateral suppuration, the presence of a layer of pus at the level of the hiatus and posterior part of the middle turbinated bone, more or less distinct opacity of the cavity when under transillumination, neuralgic pains, etc. The old descriptions of a tumour and signs of severe inflammation relate only to suppurations of cysts or other tumours of the antrum, which are less frequent.

Dental affections in the majority of cases are the causes of maxillary sinusitis, but the affection may originate from the nose, and, according to the different indications, one or the other method of treatment may be adopted to evacuate the pus, *i.e.*, either removal of a tooth or perforation through the inferior meatus, especially if exploratory puncture is necessary to confirm the diagnosis.

Three methods of treatment are utilized, called after the older surgeons who conceived them.

Jourdain penetrated the sinus through the nasal meatus, and his method has in recent times been followed by Bayer, Schifflers, and Hartmann, who recommended the introduction of a sound through the natural hiatus; but the patient cannot himself use irrigation. Moreover, the opening situated above the bottom of the cavity does not permit of complete cleansing, even when it has been enlarged by the surgeon. It is preferable to puncture the most declined part of the meatus with trocar, galvano-cautery, etc., but in this case the same inconveniences occur, though to a smaller degree, and the nasal passage ought to be used only in the absence of dental lesions.

Cooper penetrated the sinus through the alveolus, and this is the method usually employed. Communication often exists, and it only requires avulsion of a tooth to allow exit of pus. If the alveolus is intact, there only remains perforation of its base to allow the same result. Advantage is obtained by making a large opening; the sinus can then be directly illuminated with a small lamp, and accurate diagnosis thus be made, and the cavity can even be tamponed. A canula with operculum or small plate can then be worn.

Desault's, which is the third method, consists in obtaining entry to the antrum through the canine fossa. Most authors regard this as a method to be employed only as a last resort when other methods have failed or alterations in the bony structures are suspected, and the mucous membrane requires curetting. After having deflected a flap of the gum and detached the periosteum, a large opening is made with chisel or bistoury.

When the sinus is emptied antiseptic irrigations ought to be employed, and many agents have been recommended.

A distinction must be made between frequent and repeated antiseptic

irrigations, canstic or simply disinfectant, and the method of dry antisepsis, either by insufflation of medicated powders or tamponing the cavity with iodoform gauze, salol, etc. The author's own statistics yield thirty-two cases of maxillary empyema operated upon through the mouth (three by the canine fossa, twenty-nine through the alveolus), and in all these cases the results scarcely differ whichever the method employed.

Generally speaking, patients are rapidly cured when the abscess is of recent formation, but the progress of the case is slow when the suppuration is of long duration.

Dr. MOURE (Bordeaux) upheld the conclusions of the author. There were no absolute rules either as to method of operation or use of antiseptics. Empyema of the antrum was often cured rapidly after a few irrigations. On the contrary, he has seen cases in which no result has been obtained, in spite of large openings, tamponing, irrigation with caustic liquids, and curetting.

Dr. NATIER (Paris) made similar observations. Lately he has seen eleven cases of empyema of the antrum (seven women and four men), and has treated them by the alveolar method, making the opening with a drill. Some of these cases have been rapidly cured.

Dr. VACHER (Orleans) remarked that last year he treated two patients successfully by the alveolar method. Antiseptic irrigations were used twice daily. At the end of nine months in one case the drain could not be replaced in the opening, the maxillary sinus being covered with newly-formed tissue.

Dr. WAGNIER (Lille) insisted upon the difficulties of prognosis. He had seen cases in which the empyema, very old and very foetid, was easily cured, and others with slight suppuration which have experienced but slight modification in spite of all methods of treatment.

Dr. MOURE remarked upon the sharp pain which some patients experience at the moment of introduction of the canula into the alveolus.

Dr. POYET (Paris) had also observed these pains. In order to get their disappearance, he enlarges the alveolar opening.

Dr. GAREL (Lyons) preferred perforating the antrum through the nose, either by the middle or inferior meatus. Like others, he had often obtained rapid cures, and in other cases negative results from treatment.

Dr. CARTAZ concluded with the remark that he was glad to find his conclusions so generally supported. He added that anatomico-pathological works with reference to the subject are very few, and to this is to be attributed the cause of the uncertainty which still exists as to prognosis and treatment of empyema of the maxillary sinus.

Dr. MOURE. *On Empyema of the Sphenoidal Sinus.*

Inflammation of the sphenoidal sinus, signalized in 1888 by M. Berger, has been studied recently (1892) by Max Schaeffer, Grünwaldt, and Moure. Acute inflammations follow upon an ordinary coryza, which they complicate and even aggravate in certain cases; they are generally cured by emollient medication.

Chronic empyema is of great frequency, and it is to its presence that we must impute the greater number of those cases of naso-pharyngeal

catarrh which are rebellious to local treatment, such as swabbing, curetting the vault, etc.

In the first rank of functional symptoms is cephalgia and pain in the forehead or bottom of the eyes. As an objective symptom Dr. Mouré insists on the fact that the pus secreted is found at the posterior part of the nasal fossæ, in the space separating the middle turbinated from the septum. The mucous membrane at this point is very often fungous and covered with polypoid granulations.

What treatment should be adopted for this condition?

Wherever possible, irrigation of the sinus through the natural orifice should be obtained. In most cases catheterism is easy. It suffices to carry a probe of small calibre directly backwards in front of the body of the sphenoid, between the septum and the middle turbinated. The probe is pushed gently towards the upper region until a small depression is felt, which arrests the instrument. Pushing gently directly backwards a sensation is obtained of penetrating into a cavity, which is the sphenoidal sinus, and this is irrigated with a warm antiseptic injection. If the orifice cannot be found, one can be made artificially through the anterior wall of the cavity, which is often very thin. When the middle turbinated prevents access to the sphenoidal sinus it must be removed with a snare or osteotome. Treatment then by irrigations, insufflations, cauterization, and curetting, will be adapted to each case.

All these intra-nasal manipulations ought to be performed with great delicacy of hand.

Dr. CARTAZ insisted on the difficulties of precise diagnosis of these suppurations. Generally the mucous membrane is swollen and difficult to reduce by cocaine. Surgical measures will then be necessary.

Dr. MOURÉ recognized that diagnosis is not easy, but it is possible, and he quoted the case of a patient who rejected a crust moulded to the shape of the sphenoidal sinus. In atrophic rhinitis, empyema can be easily recognized, since the pus is seen to extrude from the orifice.

Dr. LACOARRET (Toulouse). *On Suppurations of the Frontal Sinus.*

The symptoms of the condition, though not characteristic, are in most cases sufficiently distinctive to recognize the condition. Pain is common, consisting in a sense of weight over the root of the nose, and sometimes is neuralgic. Patients generally have pus, and a more or less abundant flow occurs in the normal position of the head; it diminishes or ceases in any other position. The perception of bad odours by the patient and percussion of the cavities give inconclusive results. More reliable signs are obtained by direct examination, illumination, and especially by catheterism of the naso-frontal canal. Anterior rhinoscopy shows that the pus falls directly along the anterior part of the middle meatus, that the region of the infundibulum is often swollen and covered with polypoid vegetations, and that the mucous membrane of the middle turbinated is hypertrophied in its inferior part. Electric transillumination, as performed by Heryng, is of great service. Catheterism, when it is possible, gives a certain diagnosis, but it is necessary to remember that the maxillary sinus may be secondarily affected.

Treatment consists in irrigations performed with great gentleness, by the aid of a sound penetrating the natural orifice, and also in insufflation of powders. Catheterism is possible in about eighty per cent. of the cases if the middle turbinated is previously reduced by cocaine, the galvanic loop, or Hartmann's conchotome, if spurs are removed, and polypoid productions of the middle meatus which may oppose the entry of a probe. Puncture of the sinus, practised especially by Schaeffer, and subsequent curetting of the cavity, has given this operator excellent results, but this proceeding ought to be reserved for cases where one cannot effect an entrance through the natural orifices. Trehphining from outside has few indications, and these are only when other means have failed, or complications have rendered prompt action and a large opening necessary. Then, when the cavity is scraped, cauterized, and rendered aseptic, communication must be re-established through the nasal fossæ in order to allow liquids to flow.

Dr. MOURE remarked that in these latter times there was too great a tendency to perform intra-nasal operations. There is not sufficient prudence exercised, and the curette or stylet is too readily inserted. Great reserve is necessary in performing manipulations and operations upon the regions adjacent to the frontal and sphenoidal sinuses. Operators publish all their favourable cases, but it would be just to make known the accidents.

DISCUSSION ON OTORRHOEA.

Dr. POLO (Nantes). *On the Treatment of Otorrhœa.*

The rules to be followed for the treatment of this condition are to control general, and especially local, conditions (naso-pharyngeal affections, adenoid growths), then to eliminate pus from the ear and tympanum, and then institute appropriate treatment. Rigorous antisepsis ought to be observed, and everything entering the ear—liquids, instruments, etc.—ought to be sterilized. It is necessary before everything to facilitate the elimination of pus. There are two methods of treatment—the dry and the wet. The latter consists of external and internal irrigations and antiseptic instillations. Boric and phenic solutions, phenosalol, and nitrate of silver are the most serviceable. Hartmann's canula ought to be often utilized for intra-tympanic irrigations when suppuration affects the attic. Washing with the curved sound is superior to that which can be made in any other way. The dry method ought to be reserved for serous fluxes with large perforations, and boracic acid, dermatol, and iodoform are the most useful. Loewe devised cotton wads. Caustics and the galvano-cautery should be employed for granular conditions. Treatment must vary according to each individual case, and there is no absolute rule.

Dr. MIOR. From a surgical point of view, otorrhœa being ordinarily limited to the tympanum, and not extending to the mastoid cells and cranial cavity, except in comparatively rare cases, there will be no question of complications. The conditions which maintain otorrhœa are polypi, hypertrophy of the mucous membrane, caries of the ossicles and walls of the tympanum, whence the necessity of practising ablation of

these neoplasms, curetting, scraping, extraction of the ossicles and carious parts. Ablation is indicated in all cases of hypertrophy of the mucous membrane, polypiform productions, desquamative otitis, with or without osseous caries, and is more especially reserved for suppurations of the attic. The operation is easy only if the tympanic perforation is of sufficient dimensions; in other cases we have to be content with imperfect curetting, or to enlarge the opening by the destruction of the external wall of the attic by ablation of the malleus and incus. If the ossicles are carious, extraction is necessary; if they are healthy, certain otologists prefer to destroy the external walls of the attic. The sequelae of operation are very slight, and the various symptoms amend, then disappear. There is no great inconvenience from the extraction of the healthy malleus and incus since audition does not suffer. Extraction of the stapes even is without danger, and often improves hearing.

After ablation of the ossicles, curetting is essential, as is minute swabbing performed with method. The consequences are favourable, and cure is generally complete after a lapse of time varying from a few weeks to two or three months.

Caries of the tympanic walls and of the external wall of the attic can be destroyed in divers manners, especially with White's machine. If a larger operation is desirable, the operations of Stacke and Kretschmann, which consist in separating from the osseous portion of the meatus its cartilaginous portion in order more easily to reach the tympanum, the ossicles and various points of the tympanic walls, must be adopted. When the operation is completed, the cartilaginous portion is replaced and maintained by sutures. The result is generally favourable. In conclusion, surgical treatment of otorrhœa consists in the employment first of massage and curetting, with or without ablation of the malleus and incus, then destruction of the external wall of the attic, and lastly and exceptionally Stacke's operation.

Dr. LUBET-BARBON (Paris). When the ossicles are affected we know that the lesion is oftenest confined to the incus and the malleus is healthy. But extraction of the incus is very difficult. Ludwig, who devised the best method of performing it, admits this. Moreover, if the walls of the attic are carious, ablation of the ossicles will be insufficient. Stacke's operation is devised to admit of penetration to the attic. Within eight months the author, along with M. Martin, has performed this operation eight times with excellent results, which no other method could have effected. These cases have been reported in the thesis by Dr. Weissmann. The operation has the advantage of permitting examination of the attic, the discovery of otherwise overlooked abscesses of the mastoid cells, and the diagnosis of cholesteatoma.

Dr. MOURE asked particulars of the post-operative treatment after Stacke's method.

Dr. LUBET-BARBON, recognizing that this is the delicate point of the operation, replied that tamponing with iodoform gauze is employed, which must be renewed at the end of eight days, and then changed every three or four hours. A careful watch must also be kept that fleshy vegetations do not develop too rapidly, and they ought to be kept in check by the cautery, nitrate of silver, chromic acid or excision.

Dr. MOURE said he had seen otorrhœa cure quickly after simple cleansing of the tympanum, and others which had remained refractory to every kind of medical treatment. It is only in these latter cases, as Dr. Polo has remarked, that surgical methods should be adopted. Large traumatisms ought to be avoided ; simple swabblings are not inoffensive ; paralysis of the facial nerve must be considered as an eventuality. In short, treatment should be by simple washing at first, then insufflation of powders, curetting, and lastly, section of the wall ; and the operation of Stacke should only be employed as a last resort.

Dr. LUBET-BARBON was of opinion that if it is decided to practise ablation of the wall, it is better to open well. As to paralysis of the facial nerve, it is not always persistent, and often passes off after two or three days.

Dr. SUAREZ DE MENDOZA (Angers) insisted on the good effects of intra-tympanic irrigations. He had obtained excellent results from operating with White's machine.

Dr. NATIER stated that insufflations of boracic powders given without precaution may determine accidents. He had seen a case of meningitis from accumulation of powder in the tympanum.

Dr. MARTIN (Paris) observed that when irrigations caused syncope or sharp pains it was necessary to intervene surgically.

LARYNGEAL PHTHISIS.

Dr. GAREL. *On the Treatment of Laryngeal Tuberculosis.*

The prognosis of this condition must vary according as we have to do with a glottic form or a dysphagic form. In the latter case the patient is doomed to certain and speedy death from inanition. The general condition, the power of resistance and the extent of the pulmonary lesions must be taken into consideration, for the chances of cure depend upon all these conditions. The local treatment of laryngeal phthisis also is valuable or not according to the individual to whom it is applied. The different methods of treatment in vogue are—inhalaitions, for the relief of cough and dysphagia (the author gives the preference to balsam of Peru) ; sprays of opiate and phenolized preparations, insufflations of powders. Sedative swabblings are of great service in dysphagic forms. Local applications of lactic acid twenty to eighty per cent., with previous cocaineization, are the best means of modifying tubercular ulcerations, and the author has seen good effects from intra-laryngeal injections of menthol or creosote.

Submucous injections of lactic acid or iodoform are very painful ; an injection of cocaine, on the other hand, procures greater relief than a simple swabbing. Galvano-cauterizations are very well supported by the tubercular larynx, and they ought to be employed in infiltration of the epiglottic and arytenoid regions. The electrolytic method is of service if it is desired to produce eschars. Injections of tuberculin or cantharidinate of soda ought to be proscribed. Sulphur waters may produce congestive attacks. In conclusion, cocaine for cough and dysphagia, lactic acid and the galvano-cautery for ulcerations and infiltrations, such is the treatment for laryngeal tuberculosis.

Dr. CASTEX (Paris). *Surgical Intervention in Laryngeal Phthisis* is justifiable in the following conditions :—

1. When medical treatment is inefficient.
2. When indicated by local conditions.
3. When not contra-indicated by the general condition.

Operations are curative or palliative. Of the first, curetting occupies a foremost place. Heryng's or Krause's single curettes are suitable when it is desired to operate upon one fixed spot, e.g., the anterior and posterior supra-glottic regions ; but when it is desired to operate upon a non-fixed part, e.g., the epiglottis and summit of the arytenoids, it is necessary to use double curettes, which fix the part before excising it. Before operation, the cavity is disinfected for five or six days with insufflations of iodoform, the parts are then cocaineized, curetted, and fifty to eighty per cent. lactic acid applied to the bleeding surfaces.

Laryngotomy, up to the present but little used, appears to be worthy of more frequent employment.

From the author's researches it would appear that—

1. To reach the anterior surface of the epiglottis the transverse sub-hyoid laryngotomy of Malgaigne should be practised.
2. The supra-thyroid transverse incision of Follin is necessary in order to reach the supra-glottic regions.
3. Vertical or transverse thyrotomy is necessary to reach the glottic region.
4. Horizontal sub-cricoid incision is necessary to reach the sub-glottic region.

It is generally necessary to perform preliminary tracheotomy.

Laryngectomy is to be proscribed. Up to the present time it has given deplorable results.

Palliative methods comprise partial curettage, incision, and scraping of abscesses, extirpation with cutting forceps, tracheotomy, intubation.

Complications of surgical treatment are—glottic spasm, oedematous infiltration, pulmonary repercussions.

The results obtained are difficult to estimate, since statistics are generally wanting.

Dr. POLO preferred sprays of cocaine to swabbing.

Dr. MARTIN injected cocaine with a syringe, obtaining greater accuracy of application.

Dr. GAREL thought that with swabbing the cocaine better reached the painful parts.

Dr. CARTAZ agreed with Garel's remarks, and thought that Castex made too much of laryngotomy. It is a grave and serious proceeding to open the larynx of a person with pulmonary phthisis. After tracheotomy, endo-laryngeal measures will partially control the local conditions.

Dr. MOURE favoured laryngotomy in rare cases—for example, when the lesion is limited to the arytenoid region. It is not such a severe operation as Cartaz imagines. He had practised it in six or seven individuals, who were not tubercular, having previously performed tracheotomy, and he had never seen any unfavourable consequences.

Dr. GAREL said that laryngotomy was not a harmless operation, and

he quoted the case of an individual with enchondroma, who died three days after operation from pulmonary complications.

Dr. CASTEX admitted that laryngotomy was not free from danger, but insisted that it had been performed several times successfully. He thought that the operation ought not to be systematically condemned, but thought it might be reserved for cases where the lungs were sound and other measures had failed.

Dr. POYET. *Repeated Submucous Hæmorrhages of the Vocal Cords.*

Three cases were reported. A singer, after vocal effort, suddenly experienced a feeling of something tearing, which she referred to the right angle of the thyroid cartilage, her voice cracked, hoarseness occurred, then complete aphonia. She had a constant necessity to hawk; there was no other functional symptom, and she was in excellent health. The whole right vocal cord was seen laryngoscopically to be ecchymotic and slightly swollen. The hæmorrhage was absorbed in ten days. Five months afterwards the same thing occurred again with precisely the same symptoms.

The second case was that of a singer who, after vocal effort, during the menstrual period, was attacked with slight hoarseness in the upper notes. Laryngoscopically the vocal cord resembled a blood clot, and it seemed as if an incision into it would be followed by bleeding. The rest of the larynx was healthy. After three weeks' treatment (rest, inhalation, emollients, applications of tannic acid in glycerine) the cord assumed its natural appearance, except that the free edge was still ecchymotic. A comparatively large vessel was then visible on the surface of the cord, to the rupture of which the hæmorrhage was to be attributed. The accident was repeated three times, and the dilated vessel still persisted. When the hæmorrhagic phenomena disappeared, the voice again became pure and beautiful.

The third case was that of a hæmophilious patient, who on different occasions has had hoarseness with expectoration of blood. The whole left vocal cord was seen to be the seat of an ecchymosis which allowed a little blood to transude. These symptoms occurred four times, and then ecchymoses were found on the pharyngeal mucous membrane, the arch of the palate, or behind the nasal fossæ.

Dr. CASTEX said that, from several cases which he had seen, he believed that slight ecchymoses could occur in the vocal cords without any marked vocal troubles occurring. He remarked also that ruptures of the thyro-arytenoid muscle are not very rare. Dr. Moure had published an instance of a tenor who broke his voice in singing the "Suivez moi" of William Tell.

Dr. JOAL said that he had under his care an eminent cantatrice, who, for at least seven months, presented a large vascular dilatation on the surface of the left vocal cord. The voice has always been pure and resistant. Many foreign *confrères* had proposed to destroy this vessel with the galvano-cautery. Morell Mackenzie had, however, always refused. Dr. Joal had also seen an operatic artist whose voice was

especially good when his cords were congested, and a vascular dilatation was very apparent upon the left cord.

Dr. CARTAZ was of opinion that laryngeal congestions of menstrual origin or vocal effort could determine a sanguineous extravasation. In the cases which he had seen with Dr. Poyet he had clearly stated the presence of a blood clot.

Dr. GAREL believed that allied to these cases were those of haemorrhages due to the rupture of small blood cysts situated on the edges of the vocal cords.

Dr. JOAL. *Hæmoptyses and Hæmorrhages of the Lingual Tonsil.*

As to hæmoptysis, classical authors have generally been contented with making a diagnosis from epistaxis, stomorrhagias, and hæmatemesis. Bérard and Cornil, Widal and Cartaz have reported cases of pharyngeal haemorrhages; Strubing, Poyet, and Ruault have published cases of laryngorrhagias; Moure, Garel, and Masson latterly have reported cases of blood-spitting due to lingual varices. Dr. Joal has seen three cases where the onset of tuberculosis was feared from the occurrence of blood-spitting, loss of flesh and appetite, nervous excitability, insomnia, and slight and repeated cough; but the auscultation, percussion, and palpation of the chest revealed nothing, and the sputa contained no bacilli. With the laryngoscopic mirror it was seen that the blood came from small ulcers and vascular ruptures situated on the hypertrophied lingual tonsil. In these three cases the varices of the base of the tongue were not dilated.

Dr. NATIER. *On a Case of Hemorrhagic Pharyngitis.*

A man of twenty, in good health and without hereditary or personal history of disease, with no diathesis and having no organic affection, on the 8th of February last, from vocal effort, had a small haemorrhage of the mouth, and spat blood. He dined as accustomed, but was scarcely laid down when he felt a flow of blood in the throat. It was arrested by gargling with a solution of perchloride of iron. On waking in the morning he expectorated some blood, and had an abundant haemorrhage during the day. Seen on the 10th February, it was found that the blood came from the posterior and lateral wall of the right side of the pharynx. There was no trace of varix. The haemorrhage lasted altogether ten days, and yielded finally to applications of lemon juice and sprays of chloride of zinc, along with ergotine internally.

Dr. CARTAZ had seen a case of blood-spitting which was believed to indicate approaching tuberculosis. The haemorrhage came from a large pharyngeal varix. As to haemorrhages from the tonsils, he believed them to be rare. When a patient has blood-spitting, and there is no lesion of the nose, pharynx, or larynx, one may think of the onset of tuberculosis, or of vaso-motor phenomena of neuropathic origin.

Dr. GAREL divided pharyngeal haemorrhages into two categories. In the first blood-spitting occurred without reference to time or effort. These were allied to lingual varices, though he had never seen blood extruding from dilated vessels. The second category comprised nervous women who had blood-spitting in the morning on awaking. Dr. Josserand has

just published a work on this subject, and he is of opinion that the blood came from the stomach.

Dr. MOURE had been more fortunate than Dr. Garel ; he had seen blood coming from lingual varices, especially in the case of a brandy merchant, who had blood-spitting every time he drank brandy. He remarked that haemorrhage and sweating of blood were not rare in hysterical subjects, and he had only just seen in Prof. Pitre's clinic a woman who had no nasal lesion, and in whom the blood proceeded from the lachrymal puncta.

Dr. GAREL remarked that in a case of tonsillar haemorrhage he had examined the urine and found albumen, and he thought the connection worthy of notice.

Dr. JOAL remarked that in his patients there were no lingual varices, only small ulcers on the fourth tonsil. His patients were neuropathic.

Dr. NATIER did not notice any nervous phenomena in his patient, and the urine was normal.

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Dr. GAREL. *Mycosis of the Pharynx.*

He had observed twenty-nine cases of this disorder, and was of opinion that a catarrhal condition of the pharyngo-nasal mucous membrane was an important factor in its development. Seven patients were subject to recurring tonsillitis. In eleven cases there were nasal lesions accompanied with pharyngeal catarrh. Heredity was of no importance. He had seen the condition in two sisters, but believed it to be merely coincidence.

The parasite is situated in order of frequency upon the tonsils, the base of the tongue, the glosso-epiglottic fossettes, the posterior and lateral walls of the pharynx, the faucial pillars, the naso-pharyngeal vault, and the nasal fossæ.

The condition is present under three forms : (1) small points, resembling millet seeds ; (2) mushroom-like tufts, resembling the *barbe du Capuchin* ; (3) yellow plaques, resembling diphtheritic patches.

The affection has a slow evolution, can disappear spontaneously, but tends to recur. It is necessary to distinguish it from lacunar tonsillitis, in which the soft and friable points are readily raised with a probe ; from tonsillar concretions, which can be easily enucleated ; from pultaceous angina, which gives rise to general symptoms ; from herpetic angina, which invades the arch of the palate ; from diphtheria, where cultivations establish the diagnosis.

Dr. RAUGÉ (Challes). *Microscopical and Bacteriological Researches upon Mycosis of the Pharynx.*

A series of preparations were shown. Some were removed directly from the patient ; others were from cultures. Dr. Raugé thought that assimilation established between the common buccal leptostrich and the parasite of pharyngeal mycosis is not evident *à priori*. The parasite of mycosis has filaments which differ from those of leptostrich by their less wavy fossa, their greater size, and their more distinct segmentation. Though cultures have furnished more positive results, more absolute identification is still wanting.

Dr. WAGNIER. *Treatment of Pharyngo-Mycosis by Anhydrous Chromic Acid.*

All authors are agreed upon the difficulty of cure, and specialists employ methods which might appear excessive, bearing in mind the slight gravity of the affection. In two cases the author has employed anhydrous chromic acid, fused on a probe, and touching the mycotic points lightly two or three times at eight days' interval. Both patients were rapidly cured.

Dr. MOURE had obtained the best results from the use of iodo-iodated zinc solution, as recommended by Nabias and Sabrazes.

Dr. NATIER remarked that he had cured a young girl with a mycotic patch the size of a fifty-centime piece by using the galvano-cautery and chloride of zinc. He remarked that Dr. Leseure, of Oran, recommends chromic acid for the local treatment of diphtheria.

Dr. CASTEX. *Facial Erythema due to Cocaine.*

The patient was a lady with hypertrophic rhinitis, in whose nares a tampon of twenty per cent. cocaine was inserted previously to using the galvano-cautery. Three hours afterwards there was sneezing and abundant nasal secretion. In the night there was painful throbbing in the nose, the cheek, and corresponding temple, and next day facial erythema, which had commenced in the nose. Two days after all disappeared, and the patient rejected from the nares a membrane analogous to fibrinous rhinitis. She had already experienced the same symptoms from the use of a powder of cocaine.

Dr. MOURE. *Angio-Keratoma of the Vocal Cord.*

The author removed a small tumour the size of a millet seed, and of rosy colour, with small ecchymotic points upon its vascular surface, from the upper surface of the right vocal cord, upon which it was sessile. Microscopically examined by Dr. Sabrazes, it was found to resemble those growths of the skin described by Dubreuilh in 1889. This patient had upon the dorsal face of the index finger a small growth, which proved on examination to be a fasciculated sarcoma. The co-existence of an innocent laryngeal growth and a cutaneous malignant growth is interesting.

Dr. CARTAZ. *On several Cases of Influenzal Laryngitis.*

Laryngeal manifestations of influenza are frequent. Oftenest there is simply a catarrhal inflammation without gravity, but serious complications may occur, ulcers, erosions, paralyses, oedema. The latter is fortunately exceptional ; the author has, however, seen two cases in the Necker Hospital. The oedema affected the azygous and ventricular bands, and dyspnoea was marked, but not so great as to necessitate tracheotomy.

Dr. NATIER had seen two cases of influenza complicated with laryngeal oedema of the cords, which disappeared upon applications of nitrate of silver.

Dr. MOLL (Arnheim). *Treatment of Pachydermia Diffusa of the Vocal Cords.*

Pachydermia with some authors means a simple variety of chronic catarrhal laryngitis. He gives the name of pachydermia to chronic

inflammation of the mucous membrane of the vocal cords with hypertrophic thickening of the posterior extremity of the cords.

Certain specialists advocate surgical treatment, others simply recommend local ordinary measures as for chronic laryngitis. The author records a case in which he had recourse successfully to electrolysis. In three sittings of five minutes, with a current of ten to twelve millampères, and a double electrode, a marked thickening disappeared.

Dr. VACHER. *A Rare Case of Double Rupture of the Tympanum.*

In April last the author was consulted by a lady, who after influenza experienced auricular symptoms. The drums were both red and presented an external convexity as if the tympanic cavities were full of liquid. The patient was directed to make an effort at expiration with the nose closed to practise auscultation of the ear. This manœuvre determined immediately a rupture of both drums with the outflow of blood and pus. Washing the tympanum with salicylate of mercury 1·5000 led to rapid cure.

Dr. ONODI (Buda Pesth). *On the Function of the Crico-Thyroid Muscle.*

From numerous researches the author concludes—

1. Section of both inferior laryngeal nerves does not determine a median position of the cords when the trachea is open.
2. The median position is obtained when the trachea is closed.
3. The median position only lasts a short time, and is not permanent.
4. The median position can be produced for some minutes in a reflex manner by acting on the nerves of the skin.

Dr. LAVRAND (Lille). *On the Etiology of Laryngeal Polypi.*

The author remarks that this question still remains a pathological blank. He records seven cases of polypi, from which he concludes that they were produced under the undeniable influence of repeated irritations upon the vocal mucous membrane. He admits with Morell Mackenzie the etiological importance of excessive use of the organ, 91 per cent. Laryngeal catarrh may accompany or precede the appearance of the growths.

Dr. COMBE (Paris). *Syphilitic Necrosis of the Superior Maxilla.*

A man of forty, with syphilitic history, was supposed to have empyema of the antrum, but it was seen that the antrum was empty. Some months afterwards the patient was seen with a considerable swelling of the upper lip and deformity of the face. The two upper central incisors and the left lateral incisor were bathed in pus, which flowed along the alveolar wall. The teeth were removed, and the gingivo-labial furrow largely opened with the galvano-cautery as far as the canines. In spite of this, the disease progressed and spread to the nasal fossæ, and a sequestrum was extracted, comprising the anterior portion of the superior maxillæ, the palatine bones and vomer. A large perforation was left, to which a prosthetic apparatus was applied. Attention is drawn to the insidious march of the disease and the difficulties of diagnosis.

Dr. CHABORY (Mont Dore). *Cancer of the Thyroid Gland secondary to Goitre.*

A woman, forty-eight years of age, for sixteen years had a small tumour of the size of a pigeon's egg, situated in front of the neck, and following the movements of the larynx in deglutition. For one year it had largely increased in size, and became as large as a child's head, and the glands of the carotid region were invaded. A diagnosis of carcinoma was made, and later on confirmed by the microscope. The walls of the œsophagus at the autopsy were found to be healthy, the trachea was flattened, but its walls were not degenerated. The thyroid gland was carcinomatous, and there was cancer in the liver and pleuræ. The sternum was also invaded.

Dr. CASTEX. *The Effects of Dynamite on the Ear.*

The autopsies on the two victims of the explosion in the Boulevard Magenta, and examination of the ears of three other persons who did not succumb, have shown that—

1. Tympanic ruptures of various forms are produced in the posterior half of the tympanum ;
2. Otorrhagia is almost completely absent ;
3. There has been no lasting action on the internal ear.

Dr. BEAUSOLEIL (Bordeaux). *Osseous Cysts of the Nasal Fossa.*

The author has treated two women, of forty-eight and sixty years of age respectively, for a cystic dilatation of the middle turbinate. The tumours resembled foreign bodies encrusted with calcareous matters. The probe penetrated easily into the interior, which was filled with a mucous polypus. Treatment should be radical, i.e., extirpation of the cystic turbinate with the loop or galvano-cautery.

Dr. BOUFFÉ (Paris). *Nasal Stenosis and its Treatment.*

Two cases of nasal stenosis which were treated by simple and rapid dilatation by bougies.

Dr. HERCK (Paris). *Influenzal Otitis.*

The symptoms are noises, pain, followed by haemorrhages, either interstitial or ecchymoses of the tympanum, or of the wall of the external meatus, or forming a bluish phlyctenula in the inferior posterior segment of the tympanic membrane, which perforates and allows the flow of blood. This lesion of the external ear is often the only manifestation, and in every case it precedes inflammation of the middle ear. Treatment by injection of oil of vaseline gives excellent results.

Dr. BONAIN (Brest). *A Method of Treatment of Laryngeal Diphtheria.*

Evaporation of essence of turpentine (150 to 500 gr. in twenty-four hours), and vaporization of water under a tent, is recommended until the infant is cured. The turpentine is antiseptic, prevents extension of membrane to the bronchial ramifications, and ozonizes the diphtheritic intoxication.

Intubation should be practised for stenosis. The author has employed

it eight times, and in four cases obtained cure. The other four patients died of infection with hyperpyrexia.

Dr. AUDUBERT (Bordeaux). *A Case of Tertiary Laryngopathy.*

The author saw a man in whom only the upper parts of the larynx presented syphilitic lesions—the vocal cords were intact, and the motor system was perfect. Dyspnœa was considerable, and was due to the narrowness of the laryngeal introitus, where there was marked infiltration, and two enormous vegetations. Tracheotomy was not performed, and the patient was cured by the introduction of metallic bougies. Dr. Moure destroyed the vegetations with the galvano-cautery.

Joal.

Obituary.

JOHANN SCHNITZLER.

LARYNGOLOGY has suffered a painful loss by the death of Johann Schnitzler, who passed away after a short and severe illness, in his fifty-eighth year. His was a life rich in labour, rich in successes, and rich in happiness. To two ends the deceased consecrated his great talents and indefatigable activity, and he could look back with just pride and the greatest satisfaction upon his work. With zeal he consecrated himself to the science of the laryngoscope at a time when this little instrument was looked upon by most medical men as a curiosity or scientific toy, and lived to see the day, and had been himself not the least contributor to that result, when laryngology has became an edifice fixed on a solid foundation, and one of the most important branches of medical study. In all parts of the world and in all universities the followers of Schnitzler are now advancing and practising it. After hard struggles, but with an iron energy, he also lived to see his second ideal project brought to a successful termination. Under his direction a small number of young docents founded in the year 1872 the Allgemeine Wiener Poliklinik, having to combat a severe opposition from the medical faculty and the majority of the physicians of Vienna.

In small and insufficient chambers these young men commenced their medical and teaching enterprise, and a few weeks ago Schnitzler enjoyed the honour of a visit of his sovereign to the newly-erected and perfectly-fitted buildings and hospital of the policlinic, and received the congratulations and expressions of sympathy of the Emperor in the new work. His scientific ability, his humane manner, and his worldly wisdom contributed to bring him into great esteem in a very short time : kings and archdukes had been amongst his clients. As a teacher of our specialty, he had a great name. His courses in the policlinic were frequented by nearly all the well-known laryngologists, who came from all parts of the world to collect experience from the great material collected there, and

to listen to the lectures of the celebrated professor. In literary quarrels he could write in a sharp style, and defended his opinions with great ingenuity and tenacity ; in private life he was of amiable disposition, and a benevolent colleague. Over his grave mourn with his widow and his family, numerous friends and pupils, to belong to whom the writer of these lines accounts it a great honour.

Johann Schnitzler, born in 1835 in Gross-Kainsza (Komoru-Ungarn), received his promotion in Vienna in 1860, and was assistant to Professor Oppolzer in Vienna from 1863 to 1867. In the year 1880 he received the title of Extraordinary Professor, and, in 1882, of Königlicher Regierungsrath. From 1866 to 1886 he was editor of the "Wiener Medicinische Presse," and since 1887 of the "Internationale Klinische Woehenschrift." He died on the 2nd May, 1893, from erysipelas.

He published in his journals numerous leading articles and polemical papers concerning the policlinic. We will here only give a list of his most important laryngological publications :—

Laryngoskopische Diagnostik und locale Therapie der Kehlkopfgeschwüre. "Wiener Med. Presse."

Ueber Stimmenkramppf. Ibid.

Ueber Stimmbandlähmung. Ibid., 1886.

Die Geschichte der Laryngoskopie. Ibid., 1866.

Laryngoskopische Mittheilungen (Larynxpapillom). Ibid., 1866.

Klinische Beobachtungen und experimentelle Studien auf eine Gebrechen der Kehlkopfkrankheiten. Ibid., 1874.

Zur Diagnose und Therapie der Laryngo und Trachealstenosen. "Wiener Klinik," Jan., 1877.

Ueber Laryngoskopie und Rhinoskopie und ihre Anwendung in der aerztlichen Praxis Sechs Vorträge an der Poliklinik. Wien, 1879.

Aphonia spastica. "Wiener Med. Presse," May, 1875.

Die Lungensyphilis und ihr Verhältniss zur Lungenschwindsucht. Wien (1880) : Urban und Schwarzenberg.

Ueber doppelseitige Recurrenslähmung. "Wiener Med. Presse," 1882.

Tuberkulose Tumoren un Kehlkopf. Ibid., 1884.

Der gegenwärtige Stand der Therapie der Kehlkopf und Lungen-tuberkulose. Ibid., 1884.

Zur Pathologie und Therapie der Kehlkopf und Lungensyphilis. Ibid., 1886.

Die Behandlung der Kehlkopftuberkulose mit phosphosaurem Kalk. "Internat. Klin. Rundschau," 1887.

Ueber Kombination von Syphilis und Tuberkulose des Kehlkopfs und die Unwandlung syphilitische Geschwüre in tuberkulose. Ibid., 1887 und 1890.

Anwendung des Perubalsams bei Krankheiten des Kehlkopfs und der Lunge. Ibid., 1889.

Aphorismen zur Diagnose und Therapie der Kehlkopftuberkulose.
Ibid., 1889.

Ueber Kehlkopf Krebs. Wien, 1890

Robert Koch's Heilensfassen gegen Tuberkulose. Ibid., 1890.

Of his last work, "Klinischer Atlas der Laryngologie und Rhinologie" (Wien : Braumüller), the third, fourth, and fifth parts were published some weeks ago, and were reviewed in the last number of this Journal. In the editing of this excellent work he was assisted by his son, Julius Schnitzler, and his son-in-law, Marcus Hajek. It is to be hoped that this work will be finished by his collaborators after the plan of the celebrated and lamented specialist.

Michael.

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**CASES OF RECURRENT TUMOURS IN THE REGION OF
THE SUPERIOR MAXILLARY BONES**

(With Special Reference to Differential Diagnosis).

By Dr. JOHN MACINTYRE.

Read at the British Laryngological Association Meeting, March, 1893.

SOME of the cases referred to in this paper would not, as a rule, have come under the care of anyone working in our special department, but in nearly all of them the necessity for careful and early examination of the upper respiratory tract is suggested. In some the nose and naso-pharynx had not been examined; in others, while examination of these regions had revealed the presence of inflammation or simple growths, recurrent tumours were also discovered. In some of these latter cases the detection of malignant growths, as well as simpler pathological conditions, might have had a considerable influence upon the treatment, and this is my excuse for bringing a group of them before our Association.

CASE OF SARCOMA OF THE ZYGOMATIC ARCH.

G. V., aged thirty-two, engineer, was admitted to the Glasgow Royal Infirmary on the 16th December, 1892, suffering from a swelling in the left malar region. The house surgeon, Dr. Stewart, reported that the whole of the left side of the face had a swollen appearance as compared with the other side. The first indication of its presence, detected by the patient, was about six weeks previously; the swelling increased slowly for about fourteen days, and afterwards, as far as the patient could judge, it remained stationary. During this period it was thought that he was suffering from bad teeth, and he went to the Dental Hospital with a view

to having them removed. He states that about two years ago a swelling about the size of a marble appeared over the lower jaw of the same side. At no time was there any pain either to touch or otherwise. Change of temperature affected this tumour, causing a temporary increase, but ultimately it wholly disappeared. The patient states that he has always enjoyed good health, having had no illness since childhood, when he suffered from scarlet and intermittent fevers. There is no history of syphilis, but some years ago the patient had a bubo. Five months ago he received a severe blow over the left eye, which, however, was followed by nothing more serious than a discolouration, and as far as he can judge it had no connection with the present swelling. There is nothing of importance in the family history as far as his condition is concerned. His father died at middle age of Bright's disease; his mother is also dead, cause unknown. He has three brothers and sisters living, in good health.

Condition on admission : In the left malar region there is a swelling about the size of a small orange, hard and round, no pain on pressure ; it extends upwards to a little above the line of the eye-brow, downwards to the level of the lobe of the ear, forwards to about an inch behind the outer canthus of the eye, and backwards to near the front of the external meatus. The patient was carefully examined, and the state of his health generally was good. The sight of the left eye was defective, but this had been in existence for years. The pupils were equal, and both of them reacted to light and accommodation.

On the 19th December Prof. Barlow saw the patient with me in consultation, and it was decided to put him under antispecific remedies, particularly as the patient did not desire operation. On the 25th January he was re-admitted to the wards of the hospital, and as the swelling had considerably increased another consultation was called, when Professors Barlow and Clark concurred in the opinion which I had given that it would be advisable to operate. Consent was ultimately obtained, and on the 29th January the patient was put under ether, and the tumour removed. A T-shaped incision was made over the region, one line extending from the outer canthus of the eye over the zygomatic arch back to the ear. The other vertical was at right angle to this and about four inches in length. The flaps were turned upwards and downwards, and the parts dissected out, necessitating the complete removal of the zygomatic arch. A portion of the parotid gland was also removed, as it looked suspicious of infiltration. There was a little haemorrhage during operation which was easily enough controlled. The parts were dressed with iodoform and perchloride gauze, and the subsequent history was in every way satisfactory. On the 20th February the case was dismissed practically well. On the 28th inst. he presented himself in the ward, when there was no swelling whatever to be seen. There was very little mark, although the zygomatic arch had been removed.

Pathological Report made by Dr. J. LINDSAY STEVEN.—The tumour is about the size of half an orange (small), and in it there is a part of malar bone, close to the surface of which the tumour seems to take origin. On cutting into the tumour it is seen to have a mottled grey and

red colour, and to be moderately vascular, with a good deal of blood still in the capillaries. It is of moderately firm consistence. Sections were made after freezing, and were examined, both stained and unstained. They show large masses of small round cell formation embedded in cellular tissue, freely supplied with blood vessels and capillaries. The masses of cells contain little or no fibrous stroma.

In this case the patient had been treated for a considerable time on the assumption that there was disease of the upper jaw. He had some time previously received a blow on the malar bone; moreover, some bad teeth on the same side had complicated matters, and for a considerable period he had been under the care of the dentist. In this case the transillumination of the face by means of an electric lamp placed in the mouth was of benefit, because the effect on both sides of the face, although differing a little on account of the swelling on the affected side, might be said to be normal and equal. From the microscopical examination it is to be feared that recurrence of the tumour may be expected. One cannot help feeling the necessity for early diagnosis, because in this case it evidently began in the zygomatic arch, and was therefore comparatively isolated. It is noteworthy in this case that the nose and pharynx were normal.

THE EMPLOYMENT OF ACCUMULATORS IN MEDICINE AND THE BEST MEANS OF CHARGING THEM.

By Dr. LICHTWITZ, Bordeaux.

AMONGST the numerous applications of electricity, galvanization, faradization, and electrolysis especially are prominent; others, such as the galvano-cautery and illumination of the natural cavities, are applicable to certain specialties, notably rhinology and laryngology. In spite of the incontestable superiority of the galvano- over the thermo-cautery, it often happens that the surgeon prefers the Paquelin cautery. There is no need to refer to the insufficiency of this instrument, which does not allow of the heating of a loop, and which is difficult of employment in cavities which are narrow, deep, or anfractuous. As to the electric light, it is used in laryngology and rhinology for direct or transparent illumination of the cavities. The surgeon has often need to employ it to illuminate his operative field in cases of laparotomy, trephining, extirpation of the larynx, &c. A small Edison's lamp employed thus allows the illumination of the neighbourhood of the wound without the fear of radiation of heat. In operating theatres all lights, other than electric, ought indeed to be rigorously proscribed by reason of the accidents which may be caused to the patient and operator.¹ If this method is rarely employed, the

¹ Everbusch ("Münch. Med. Woch.", No. 13, 1889) often remarked that when chloroform was given in rooms lighted with gas, the patient, the operator, and the assistants were affected, and experienced burning of the eyes, attacks of coughing, and nausea.

Pettenkofer ("Münch. Med. Woch.", Nos. 7 and 8, 1890), who sought the cause of these phenomena, found that, under the influence of any flame, chloroform is decomposed into ch oral, hydrochloric acid, phosgene gas, or chloro-carbonic acid, which exercise an irritant action upon mucous membranes.

reason is to be sought in the difficulty of supplying small lamps. The costly and cumbrous piles now in use fail oftenest when they are required. It is the same for heating of cauteries and galvano-caustic loops. The inconstancy of the sources of the electricity, the difficulty of their employment, and their great cost have much impeded the vulgarization of the galvano-cautery and electric illumination.

Since Planté, utilizing the electro-motor force developed by the polarization of lead electrodes employed in electrolysis of acidulated water, discovered his accumulators or secondary batteries, and especially since their manufacture has made great progress, the attempt has been made to substitute them for galvanic piles. L. Bayer,² of Brussels, in 1883, was the first, so far as we know, to establish the superiority of accumulators over primary batteries. Accumulators once charged are, according to him, of easy manipulation, last longer, and possess greater constancy than other instruments for producing the current necessary for the galvano-cautery. In spite of this author's commendations, accumulators at first scarcely found any partisans, and it is only latterly that their employment has been supported by various surgeons: McBride,³ Semon,⁴ Ogston,⁵ Kuhn,⁶ Seligmann,⁷ Trautmann,⁸ Lamann,⁹ Freudenthal,¹⁰ Cheval,¹¹ Jacobson¹²; these authors agree in saying that accumulators are preferable to the various primary batteries. In short, when they are charged they keep their charge so long as the circuit remains open, they are ready at a moment's notice without the necessity of plunging metallic plates in liquid, and there is no need to draw these out when the operation is ended. Accumulators then permit of results as powerful as those furnished by batteries, and these effects remain constant so long as the charge lasts.

It is not the same with the current from batteries, which is gradually enfeebled from polarization of the electrodes, weakening of the acid solution, and increase in its resistance. Everyone now, therefore, admits the superiority of accumulators, and disagreement only commences with the method of charging them. Certain authors employ for this various hydro-electric batteries, but, although the charge is repeated only at intervals more or less prolonged, the *ennui* caused by the employment of these batteries is not avoided.

Thermo-electric batteries have been devised by Ogston, amongst others, but their power is very slight. Others, e.g., Trautmann (*loc. cit.*), and, lastly, Truchot,¹³ have charged their accumulators by dynamo-electric

² "Monats. für Ohrenheilk.," No. 10, 1883; "Rev. Mens. de Laryng.," pp. 70-74, 1883; pp. 292-297, 1884.

³ McBride, "Edinburgh Med. Journ.," Dec., 1884.

⁴ Semon, "Lancet," 14, 21, 28 Mar., 1885.

⁵ Ogston, London, 1887.

⁶ Kuhn, "Deutsche Med. Woch.," 24 Oct., 1889.

⁷ Seligmann, "Therap. Monats." No. 12, 1890.

⁸ Trautmann, "Deutsche Med. Woch.," No. 15, 1890.

⁹ Lamann, "Monats. für Ohrenheilk.," Nos. 2, 3, and 11, 1891.

¹⁰ Freudenthal, "Monats. für Ohrenheilk.," No. 8, 1891.

¹¹ Cheval, "Rev. de Laryngol.," No. 19, 1891.

¹² Jacobson, "Berliner Klin. Woch.," No. 13, 1892.

¹³ Truchot, "Arch. d'Electricité Med.," No. 1, 1893.

machines. Some authors recommend their being charged at central electrical stations. Both systems have their inconveniences. Few require such an amount of electricity as to instal a dynamo in their houses, and it is not convenient to have to send the accumulators to an electrical station each time they run down; this can only be done when one is near such a station, or when the accumulators are rarely used, and explains why so many have up to the present hesitated to employ these apparatus. Bröse¹⁴ has proposed to use the current from the dynamo directly intercalating in the circuit a sufficient resistance. He employs rheostats of German silver, the maximum resistance of which is 5000 ohms, and which permit of the graduation and diminution of the current intensity. Thus intercalating the whole resistance of 5000 ohms, the intensity of the current of electro-motive force of 100 volts would only be 20 milliampères, since, according to Ohm's law,

$$I = \frac{100 \text{ V.}}{5000 \text{ O.}} = \frac{1}{50} \text{ A.} = 20 \text{ milliampères.}$$

In the galvano-cautery, where 15-20 ampères are necessary, the resistance ought only to be 5 ohms, since

$$20 \text{ A} = \frac{100 \text{ V.}}{5 \text{ ohms.}}$$

For this, the rheostats of German silver, which heat too greatly, are replaced by large and long iron wires. The author calculates that the consumption of electricity is insignificant with this disposition, but he forgets the rheostat which deprives the galvano-cautery of the current produced in the rheostat, and which is due to heating of the latter. This adaptation is also applicable only to large centres, where electricity is supplied day and night. In most towns, as in Bordeaux, the distribution only commences at night-time. It necessitates the installation of costly rheostats to moderate the power of the current, and does not avoid the necessity of an electric supply by battery or accumulator whenever this is required by the bedside of a patient. From all that has been said it follows that accumulators are the best means of supply for the galvano-cautery or electric lighting in medicine, but their charging leaves something to be desired.

For three years we have sought for the best means of charging them. For the first two years we employed two Gendron's batteries: they appeared superior to others, although like others, they presented inconveniences in their employment. For the last year we have charged our accumulators from the Electric Lighting Society of Bordeaux, and here is the description of the instalation, quite simple, which has been furnished to us.¹⁵

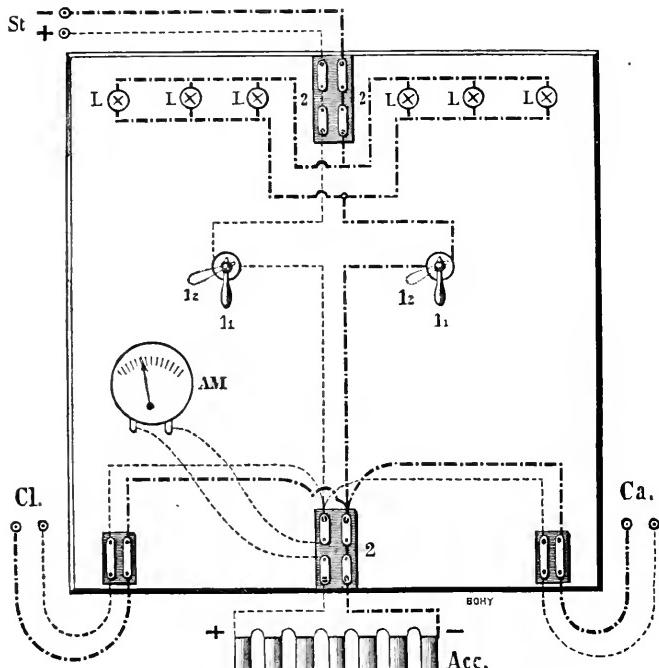
Thanks to this instalation, it is possible to charge our accumulators at little expense. The current furnished by this society has a tension of about 100 volts. Its intensity being too great, it was necessary to intercalate a resistance. In place of the costly metallic resistances we used old lamps blackened by use, of 16, 32, 50 and 100 candle-power, which could

¹⁴ Bröse, "Berliner Klin. Woch., Nos. 41 and 42, 1890.

¹⁵ We thank M. Peyramale, of that society, who has undertaken the installation.

no longer be used for lighting, and which the society furnished gratuitously. These lamps are intercalated in the conductors transporting the electric energy to the accumulators. They are placed in the supports of a table.¹⁶

They are not placed in any series so as to form a single current, a disposition which would result in augmenting the resistance according



NOTE.—St. Central Station. L. Lamps. Ca Consulting Room. Cl. Clinique. Am Ampérimètre. 1_z, 1_i. Interruptors. 2. Current Closers.

to the number of the candle-power, but distributed in such manner that the greater the number of lamps and candle-power the greater the amount of current passing. If the electric current is compared to a liquid, it can be said that in this grouping of the lamps so many taps are created, across which the electricity flows.

Thus, to allow of the passage of a current of ten ampères, it is only necessary to place in five of the supports a lamp of 50 candle-power, each lamp allowing the passage of a current of two ampères. Accumulators have a very feeble resistance, and scarcely diminish the intensity of the current. If lamps of different types are employed (16, 32, 50, 100 candle-power) of which the resistance is known, the intensity of the current which it is desired to pass into the accumulator can be graduated at will. For greater exactness an ampérémètre is intercalated.

For our own use we have installed two series of fixed accumulators, the one of seven accumulators, the other of four, and one portable

¹⁶ This table can be placed in any spot whatever where the accumulators suffer the least.

accumulator. The series of seven accumulators serves for lighting, that of four for galvano-cautery, and both united serve for electrolysis.¹⁷

The small portable accumulator serves for cauterization at the bedside, and replaces with advantage Bunsen's battery for the induction current with Charriot's coil.

We thus have at our disposal all necessary resources for galvanization, faradization, electrolysis, cautery and lighting.

The tension of the current supplied by the society being very great, there is no need, as with a small number of batteries, to group the accumulators; there is interest in leaving them united in tension, so that they serve for the discharge, for the charge would not last longer, for a constant *régime*, if the number of accumulators to be charged were increased, and, as will be seen further, the expense is the same if one or forty accumulators were charged at the same time.

The intensity of the charging current will vary according to the weight of the accumulators. Experiment has shown that it ought not to surpass one ampère for a kilogramme of lead.¹⁸

We have experimented with many kinds of accumulator, especially with those of Faure, Sellon, Volckmar, and Julien, but we have always found that the figures in the catalogue, indicating the utilizable capacity, were exaggerated.

Large conductors of three or four milliampères diameter bring the current from our forced accumulators into the consulting room, also to our clinic, twenty mètres distant, and at each table exists a switch. In order to regulate the intensity of the current for small electric lamps a rheostat of forty-five thin wires of German silver is necessary, and for the galvano-cautery, one of large mesh. For electrolysis and galvanization, we employ the rheostat of Lewandovski, which is convenient, simple, and cheap. With it the intensity of the current can be slowly increased or diminished without producing jumps.

A voltameter is necessary to indicate when the charge ought to cease, and when the accumulator requires recharging. The charge is complete when the voltameter indicates 2·3, 2·4 volts, and gas is then abundantly set free. Discharge ought to be stopped when the voltameter descends to 1·85 volts; if below this limit the battery decreases and a formation of scales or crusts of white sulphate is formed on the negative surfaces and falls to the bottom of the recipient.¹⁹

Another means of learning the condition of the charge consists in measuring the specific weight of the sulphuric solution, which varies according to the composition of the electrolyte, but the voltameter suffices for medical men.

En résumé, in order to charge accumulators it is necessary—

1. To be connected with the wires of distribution of an electrical station :

¹⁷ In gynaecology the electrolytic treatment of uterine fibromas requires currents of greater intensity (up to 250 milliampères), and the number of accumulators must therefore be considerable—about 25 to 30.

¹⁸ In their catalogues the companies indicate the rules for charging each type of accumulator.

¹⁹ When discharge commences the electro-motive force = 2·25 volts; at first it decreases rapidly, but afterwards during three-quarters of the period constantly = 2 volts. Then it falls rapidly. When the voltameter = 1·85 volts the charge ought to be arrested at risk of deteriorating the accumulator.

2. To have a table supporting lamps as described :
3. To have an ampèrimètre and a voltameter to control charge and discharge.

A register (wat-mètre) furnished by the society registering the number of hectowats employed.

As to the cost of charging, this will depend upon the number of accumulators charged at a time. Up to about forty accumulators, the expense will be less for each accumulator.

The one ampère current as a rule furnished by the society will have a power of 100 volt-ampères or one hectowat, and in charging one accumulator only during an hour about $2\frac{1}{2}$ volt-ampères will be used, whilst the $97\frac{1}{2}$ volt-ampères which remain will be used in the lamp employed for resistance.

If, on the contrary, forty accumulators are charged at once, they use nearly all the one hundred volt-ampères and nothing is lost in the lamp. Accumulators serve in some way as electric transformers ; they change a current of one hundred volts and of one ampère into one of two and a half volts and forty ampères.

Consequently, when only one accumulator of one hundred ampères an hour capacity is charged, the expense will be one hundred hectowats, or at the price of eleven centimes per hectowat, eleven francs. The expense of charging ten or forty accumulators being the same, the expense of charging each accumulator will only be eleven-tenths or eleven-fortieths of a franc. Thus the cost for one accumulator is as much as that for forty equal tension.

This installation will naturally be of use only to those who constantly require electricity, *i.e.*, for certain specialists (electro-therapeutics, gynæcology, rhinology, and laryngology), and in hospitals.

For those who use less, two accumulators will suffice, charged at one installation at the instrument maker's or at the electrical station.

We believe that with accumulators charged in this manner the galvano-cautery and electric light will be more frequently employed.

With a sufficient number of accumulators there will be no need for batteries, as numerous as costly, for faradization, galvanization, and electrolysis, and others for galvano-cautery and lighting.

It suffices to have one single source for the electricity, which, thanks to various rheostats, can be utilized for the different applications of medical electricity.

INSTRUMENTS, THERAPEUTICS, AND DIPHTHERIA.

Wilkin, Griffith Charles (London).—*New Ecraseur Snare.* “Lancet,” Feb. 25, 1893.

THIS snare, the action of which is not quite clearly explained in the description, is arranged so that the loop can be easily tightened by a

finger-pull, and then firmly drawn home by means of a screw-écraseur.
It seems very conveniently formed.

Dundas Grant.

Makuen.—*A Modification of Gottstein's Instrument.* “Med. News,” April 8, 1893.

A MODIFICATION of the well-known instrument. *J. Macintyre.*

Scheppegrell, W. (New Orleans).—*An Improved Vapour Apparatus.* “Med. News,” Apr. 1, 1893.

A TWO-NECKED Wolff's bottle, the necks of which are fitted with india-rubber corks, through which pass glass tubes for a short distance. To each glass tube is attached a piece of india-rubber tubing, one being fitted with a tip to fit the nose or Eustachian catheter, the other with a double hand-ball or a Politzer bag. A little of a volatile material, such as iodine or chloroform, is placed in the bottom of the bottle.

Dundas Grant.

Hanks, H. T. (U.S.A.)—*Surgical Soap.* “Med. Rec.,” Jan. 7, 1893.

DR. HANKS, after much experiment, recommends the following formula:—

3 parts best commercial green soap.

1 part 95 per cent. alcohol.

1 part glycerine.

1 part water.

1 drachm oil of rose geranium to each part of alcohol.

The last indefinite quantity of perfume is to cover the smell of the soft soap.

Dundas Grant.

Hudson, A. T. (Stockton, California, U.S.A.)—*Safety in the Use of Chloroform.* “Med. Rec.,” Jan. 14, 1893.

“THE early and ample use of brandy is the remedy, administered a few minutes before chloroform to the border of intoxication or of high exhilaration.” Dr. Hudson uses a wire gauze inhaler lined with a clean piece of lint or flannel, and he often dilutes his chloroform in the proportion of nine to seven or ten to six of alcohol.

Dundas Grant.

Stevenson, W. A. (Netley).—*Chloroform Anesthesia.* “Lancet,” March 18, 1893.

PROFESSOR STEVENSON, while admitting the general applicability of the law that chloroform kills by interference with respiration, rejects the view that it is a law without exception, and narrates two cases in which syncope, pallor, and disappearance of pulse took place towards the end of operations, during which the chloroform had so far been well borne, “whilst not only did the movements of respiration continue,” but “were effective in moving the air freely in and out of the lungs.”

In the second case the syncope came on during the twisting of a hernial sac. Timely treatment on the observation of the failure of the pulse was successful in both.

Dundas Grant.

Mattison, J. E. (Brooklyn).—*Cocainism.* “Med. Rec.” Jan. 14, 1893.

A NUMBER of cases of physical and mental deterioration due to the cocaine habit acquired through its medicinal use are narrated. A large

proportion of the cases were physicians. Most recovered, though in some only under restraint. The descriptions are very graphic.

Dundas Grant.

Fischer, Louis (New York).—*The Result of Examinations of Sewer-Gas which Escaped in Tenement and Private Houses, wherein Cases of Diphtheria occurred.* “Med. Rec.,” Jan. 28, 1893.

DR. FISCHER considers that diphtheria may be disseminated by means of the membrane and sputum thrown down the waste-pipes of houses. He collected in eighty-five different places by means of gelatine plates the air of sewer-traps, but had to reject forty-five owing to accidents. Of the remaining forty, twelve yielded pathogenic bacteria (some diphtheritic, and one typhoidal, eight a mixture of micro-organisms, saprophytes, &c.).

Dundas Grant.

Carpenter, G. —*Vulval Diphtheria in Infants.* “Arch. of Pediatrics,” Feb., 1893.

THIS condition is rare. The author relates three cases, in none of which was there a discharge from the vagina or vulva. The disorder may be associated or not with diphtheritic pharyngitis, pharyngo-laryngitis, or other seat of election for membranous deposit, or with specific fevers—in the author's cases one was associated with chicken-pox, the other with whooping cough. It is not of graver prognosis than diphtheritic pharyngitis unless attended by gangrene and sloughing, when the prognosis is bad.

R. Norris Wolfenden.

Editors of “Medical Record.” —*True and False Diphtheria.* “Med. Rec.,” Feb. 4, 1893.

ATTENTION is drawn to the valuable experiments carried out by Booker (“Bulletin of the John Hopkins Hospital”) for the purpose of determining the “Relation of Pseudo-Diphtheritic Angina to Diphtheria, with special reference to Scarlatinal Pseudo-Membranous Angina.” He arrives at the conclusion that they cannot be distinguished by their clinical features, although quite different in bacteriological nature. In the case of the bacillus diphtheriae the body is invaded (apart from the false membrane) only by the toxic products, not by the bacillus itself, whereas in pseudo-membranous throat affections of scarlatina, measles, &c., the streptococci diffuse themselves throughout the body generally. The hope is expressed that in the fulness of time bacterioscopy will be able to afford the prompt means of diagnosis that bedside requirements demand. *Dundas Grant.*

Park, W. H. (New York). —*Diphtheria and other Pseudo-Membranous Inflammations—A Clinical and Bacteriological Study.* “Med. Rec.,” Feb. 11, 1893.

THE term “true diphtheria” is confined to those cases which are caused by the Klebs-Loeffler bacilli, that of pseudo-diphtheria to those caused by streptococci, or possibly other cocci. The reasons for this distinction are fully discussed, and numerous cases are tabulated in support of the views advanced. For the examination a small swab of cotton wool on a wire rod sterilized and preserved in a test-tube is rubbed against the

membrane. A tube of solidified blood-serum is inoculated with it, and placed in an incubator for twelve hours. A scraping from the colonies is then spread out in a drop of water on a cover-glass, dried, and then stained with Loeffler's alkaline methyl-blue. As a rule the nature can be clearly made out by means of the one specimen. This should be done as early in the disease as possible, because the absence of the bacillus in the later stage is no proof that the case has not been one of true diphtheria. Out of one hundred and four cases of suspected diphtheria, seventy-three showed the Loeffler bacillus usually associated with streptococci; thirty-one were free from it, and twenty-six of these showed chiefly streptococci. Of the seventy-three bacillary cases, nineteen died; of the thirty-one non-bacillary, one died. Selecting the cases of children under two years of age, ten had diphtheria—the larynx was affected in nine of them, and eight died. On the other hand, six had pseudodiphtheria—in four of them the larynx was affected, but none died.

In many of the less typical cases the diagnosis was only attainable with certainty by bacterioscopy, but certain diagnostic principles are deduced from or confirmed by the result of Dr. Park's studies. The following are some of the most definite:—No case of follicular tonsillitis in an adult was true diphtheria; no case of well-marked pseudo-membranous angina (thin, friable, greyish pseudo-membrane covering the margins of the uvula, faucial pillars and sides of pharynx, the tonsils have thicker exudates) was true diphtheria; most cases of pseudo-membranes and exudates confined to the tonsils in adults were not diphtheria, but a few cases looking just like them were; the same may be said of the cases of acute inflammation of the pharynx and fauces with little or no exudate; most of the uncomplicated cases of pseudo-membranous laryngitis were true diphtheria, but a few in summer and autumn, and a number in late winter and spring, were not (an absolute diagnosis was in these cases dependent on bacteriological cultures); in young children cases like lacunar tonsillitis were sometimes diphtheritic; true pseudo-membranes confined to the nose were in all cases diphtheritic; irregularly placed patches of adherent pseudo-membrane on some other portions than the tonsils or margins of the faucial pillars or uvula, as also thick greyish membranes covering a large portion of the tonsils, the soft palate, and often nostrils and naso-pharynx, were always diphtheritic.

The local treatment adopted was irrigative, with one to four thousand bichloride of mercury, for nostrils and pharynx, calomel fumigations and intubations for the larynx.

Dundas Grant.

Booker.—*Diphtheria and Membranous Laryngitis.* “Lancet.” Feb. 25, 1893.
THE author's experiments on membranous affections of the throat occurring in scarlet fever and measles are recorded in the “Bulletin of the John Hopkins Hospital,” III., 26, p. 109. He concludes that they differ from true diphtheria in nature and etiology, though they have a clinical similarity. These changes in scarlet fever and measles are characterized by the presence of streptococci, producing suppurative processes. He trusts to bacteriological examination to furnish a certain criterion.

Dundas Grant.

De Voe, A. (Seattle, Wash., U.S.A.)—*Throat Diseases at Puget Sound.* “Med. Rec., Mar. 11, 1893.

DR. DE VOE reports that in the city of Seattle, with a population of about sixty thousand inhabitants, there have occurred only four deaths from scarlet fever, and three from diphtheria, within two years. He suggests it as a most favourable climate in which to raise up children. [From what we hear of the difficulty of rearing children in America these remarkable statistics must tend to attract the attention of intending parents—not intending doctors—to the locality.—ABS.] *Dundas Grant.*

Jacobi, A.—*Clinical Lectures on Pediatrics.* “Arch. of Pediatrics,” Feb., 1893.

A LECTURE on a case of scarlet fever in which there was greyish membrane on the left tonsil. When this is present on the first day it means a great deal, when it occurs on the fourth or fifth day it does not mean much. When present on the first day the membrane will spread, and very likely lead to general sepsis. These cases run a very bad course. In many cases the membrane is that of what is now called diphtheria, but in the large majority it is due to what writers are not now inclined to call so. The disposition is not to call a case diphtheria unless the Klebs-Loeffler bacillus be present, whatever the character of the membrane may be. In not more than about sixteen per cent. of all cases of apparent pseudo-membrane of scarlatinal diphtheria can the genuine Klebs-Loeffler bacillus be found. In other cases streptococcus or other micro-organism is met with. It is these latter which make the pseudo-diphtheritic throat of scarlatina of such bad prognosis.

Gerhardt in 1884 called attention to the probability that diphtheria was the result of different micro-organisms. Jacobi prefers to give the name diphtheria to all pseudo-membranes, whether the bacillus or streptococcus is present. “The finding of a micro-organism need not prove ‘its etiological importance, and it may be, after all, but the secondary ‘infection of, and through the medium of, the blood and the changed ‘chemical and biological condition of the surface.’”

The lecture concludes with remarks as to treatment.

The mere presence of high temperature does not indicate antipyretics; sepsis and heart weakness require fighting against. Alcohol and digitalis are indicated. Disinfect the locality where the poison arises; this cannot be done by direct applications to the tonsil. Struggling will exhaust a young child, and inaccurate application will lead to the extension of the process. It can be done by spraying, or syringing through the nose. Carbolic is not appropriate. Bichloride of mercury should not be more than 1 in 5000-10,000, lime water or boracic acid 3 to 4 per cent. may be used. Swollen glands often diminish after using these nasal injections. The object is less to disinfect than to cleanse, and the selection of the wash is in many cases of no account. *R. Norris Wolfenden.*

Flahaut (Normandy).—*The Petroleum Treatment of Diphtheria.* “Lancet,” March 25, 1893.

OUT of thirty cases treated by Dr. Flahaut in the better-known ways (carbolic acid, sublimate, salicylic acid, &c.), nine died. In the next

forty cases he adopted local applications of petroleum by means of throat brushes every hour or two according to the severity, and all recovered. The application is said not to be painful, but the smell and taste are unpleasant.

Dundas Grant.

Gardner, James L. (Portland, Conn., U.S.A.)—*The Treatment of Diphtheria.*
“Med. Rec.”, Feb. 18, 1893.

STRONG recommendation of the local and internal use of tincture of perchloride of iron.

Dundas Grant.

Amende, C. G. (New York).—*Boroglyceride with Alum and Creosote in the Treatment of Diphtheria.* “Med. Rec.”, Feb. 25, 1893.

OVER sixty cases were treated with pretty large doses of quinine, and the hourly application to the fauces by means of a camel's-hair pencil of the following:—Boroglyceride, one ounce; alum, one ounce; creosote, twenty drops; glycerine to eight ounces. Only two of the patients died, and in their cases a fair trial of the remedy was not obtained. *Dundas Grant.*

Park.—*On the Parasitic Theory of the Etiology of Carcinoma.*

THE author gives in review the different ideas as to the parasitic theory of cancer, and the paper is interesting by way of historical reference to the work which is being done in this department.

J. Macintyre.

Pathological Society of London.—*Psorospermosis and Malignant Disease.*
“Brit. Med. Journ.”, May 20, 1893.

THE report by the Morbid Growths Committee on Mr. J. Jackson Clarke's preparations of malignant tumour we find, on the whole, unsavourable to the latter's views.

1st. That the highly refracting particles found in groups of large cells, held by Clarke to be spores, were looked upon as oil droplets.

2nd. Cells containing granules, alleged to be protozoa containing spores, were thought to be connective tissue corpuscles.

3rd. Material filling spaces between epithelial cells in scirrhus, asserted to be living neoplasm and a stage in the life-history of a parasite by Clarke. No evidence for the assertion.

4th. Sections of scirrhus of the breast showing a faintly pink mass of polyhedral elements without visible nuclei, but at the margin a certain number of spherical or irregular bodies coloured green. These are considered by Clarke to be protozoa with spores dyed with the stain. The committee consider these are masses of necrosed cells, between or into which leucocytes have migrated.

The report draws attention to the unsound method pursued by the author of affirming common appearances to be due to protozoa, without disposing of the usually accepted interpretations. The specimens of sarcoma submitted were not discussed. The so-called plasmodiæ were regarded as giant cells. The author's attempt to show intermediate stages of development and a process of sporulation occurring on certain elements present in tumours has failed. The report is signed by Messrs. Bowlby, Cheyne, Hebb, Sharkey, and Shattock.

Wm. Robertson.

MOUTH, PHARYNX, OESOPHAGUS, &c.

Heath, Christopher (London).—*Bloodless Method of Removing the Tongue.*
“Brit. Med. Journ.” May 6, 1893.

THE so-called novelty consists in making a transverse groove in the tongue, and in then grasping the remaining tissue, including the blood vessels, with forceps. The tongue is now separated and the linguals are tied behind the forceps. [Many surgeons will acknowledge to having employed a like measure before. A precisely similar operation was described two years ago by the Reporter.] *Wm. Robertson.*

Kidd, Leonard, and Carpenter, George (London).—*Innervation of the Palate.* “Lancet,” Jan. 21 and 28, 1893.

THE author suggests that the regurgitation of fluids in Dr. Carpenter’s case of “Facial Paralysis of Rheumatic Origin—Implication of the Soft Palate” (“Lancet,” Jan. 7, 1893), was due to post-nasal growths coexisting with the enlarged tonsil. He quotes the experiments of Dr. Beevor and Prof. Horsley as having definitely proved that the levator palati is supplied by the accessory nerve to the vagus.

Dr. Carpenter, in replying, stated that no physical impediments to closure of the palate were present, and that he was unable to explain the regurgitation in any other way than by paralysis of the palate. He recognized the occurrence of regurgitation in cases of post-nasal growths as an occasional but extremely rare phenomenon. He also makes the important statement that the palatine paresis was present *after* the ablation of the tonsils and *before* admission to the fever hospital.

Dundas Grant.

Carpenter, George (London).—*Cases of Facial Paralysis of Rheumatic Origin in Children—Implication of the Soft Palate.* “Lancet,” Jan. 7, 1893.

IN one out of four cases the soft palate was implicated. A girl, aged nine and a half, had suffered from facial paralysis of the right side for eight months. She had been absent for three months since May 15th, 1890, with scarlet fever at the New Cross Fever Hospital, but on her discharge returned under Dr. Carpenter’s care. She was last seen on August 21st, 1890. Her state was as follows:—She could not frown on the affected side or close the right eye, and the lower muscles on the same side of the face were quite paralysed. The tongue was slightly protruded. The mother stated she used to drag the right leg, and did so a little when brought to the hospital, and was weak in the right arm. Soft palate: At rest the uvula was nearer the left tonsil, and moved towards the left on phonation. The movement was nearly all on the left side of the soft palate. The left tonsil was enlarged; this was interesting because both tonsils were partially removed before her attack of scarlet fever. She spoke with a nasal intonation, and liquid returned through the nose. There were no other palsies. [It is to be regretted that the order of

events in this remarkable and complicated case could not be more definitely described. Such an exceptional combination of clinical phenomena demands very thorough analysis before it can be accepted as proving implication of the soft palate in rheumatic facial neuritis, or as settling the question of the ultimate nerve-supply of the palatal muscles, and it would be interesting to have it minutely detailed with less regard to space. The unequal size of the tonsils, the previous operation, the possibility of diphtheritic infection, or simply of severe inflammatory involvement of the throat in connection with the scarlet fever, and the dragging of the right leg, all afford room for much speculation.—ABS.]

Dundas Grant.

Newcomb, J. E. (New York).—*The Medical Treatment of Acute Tonsillitis and Pharyngitis.* (A Comparative Study, based on One Hundred and Sixty-nine Cases.) “Med. Rec.” Mar. 11, 1893, from “Journ. of the Amer. Med. Assoc.” p. 685, 1892.

DR. NEWCOMB recommends salol in preference to salicylate of soda or guaiac. When it fails he gives chlorate of potash with iron. If peri-amygdalar infiltration has set in he advises an incision (after cocaine) high up in front, and above the pillars, even if there is no pus, which rarely occurs before the fourth day.

Dundas Grant.

Solis-Cohen, S.—*Notes on Acute Tonsillitis.* “Medical News,” Apr. 29, 1893. THE author insists that, for therapeutic purposes, the distinction between rheumatic and non-rheumatic cases is most important. The following points serve as useful guides in distinguishing rheumatic from non-rheumatic cases.

1. The personal or family history of the patient.
2. A tendency to frequent recurrence of the affection.
3. The occurrence of symptoms, local or general, before any evidence of inflammation is visible upon inspection of the throat, and the tendency to partial or complete subsidence of nervous and febrile symptoms with the occurrence of local signs.
4. The coincidence with sore throat of one or more of certain rheumatic or rheumatoid symptoms or signs, vague or pronounced.
5. The existence of any joint symptoms, especially pain on motion, or stiffness.
6. Urinalysis, excessive acidity, excess of urates, and, in rare instances, albuminuria, pointing to a rheumatic origin of the affection.
7. The occurrence of anomalous eruptions.

The local treatment the author advises is the use of a gargle consisting of four fluid drachms of the ammoniated tincture of guaiacum, shaken up with two drachms of the compound tincture of cinchona, and six fluid drachms of refined honey, to which are slowly added two fluid ounces of the concentrated infusion of coca and enough water to complete the six ounces, in which are dissolved ninety grains of sodium salicylate. A table-spoonful of this is used in divided portions as a gargle, and, if advisable, a small quantity may be swallowed. Heat is applied to the neck externally, and, in cases attended with much infiltration of the sub-maxillary tissues or with glandular involvement, inunctions of a fifty per cent.

chthyol ointment are made. In anaemic patients, more especially among those subject to frequently recurring attacks of articular rheumatism or tonsillitis, tincture of iron should be combined with sodium salicylate. The bowels should be kept freely open. Ice may be given to suck, and milk diet should be ordered.

W. Milligan.

Dabney.—*Retro-Pharyngeal Abscess with Enlarged Tonsils.* “Med. News,” May 6, 1893.

IN this case the child, between three and four years of age, had been attacked with a slight sore throat, and an increase in size of the already enlarged tonsils three weeks previous to the author's seeing him. There was marked difficulty in breathing, but no blueness of the skin, and no general disturbance beyond exhaustion and a tendency to somnolence. There had been marked swelling beneath the right ear, extending down the neck. Both tonsils were much enlarged, the right more especially. The hypertrophied portion was removed. As further exploration was necessary, chloroform was administered. Low down upon the right side of the throat, bulging toward the middle line, and pushing down the epiglottis, a decided swelling with evident fluctuation was found. This was at once opened, and a considerable quantity of pus evacuated. Complete recovery ensued. The author points out the following features of the case as being of special interest :

1. The enlarged tonsils more or less interfering with satisfactory examination, and concealing the nature of the more deeply-seated disease.
2. The entire absence of any dysphagia.
3. The swelling in the neck.

This swelling was doubtless a deeply-seated suppurative lymphadenitis pointing towards the pharynx.

W. Milligan.

Barrett (Australia).—*Hypertrrophied Tonsils and Ignipuncture.* “Med. Rec.,” Jan 14, 1893, from “Australian Med. Journ.”

IN children he prefers the guillotine, but in adults he (after cocainezation) uses the Paquelin cautery with a stout terminal curved at the point at right angles, inserting it into the tonsil in many points till the whole surface is riddled, and the partitions broken down. There is local reaction and indisposition for from twenty-four to seventy-two hours, and the sloughs separate in from three to seven days, after which the tonsil atrophies. [Only moderately convincing.—*ABs.*] *Dundas Grant.*

Jessop, Edward (London).—*Secondary Haemorrhage after Removal of the Tonsil.* “Brit. Med. Journ.,” June 3, 1893.

This occurred in a delicate girl ten years of age, on whom the author had performed double tonsillotomy without any unusual loss of blood. The next day a membranous deposit covered the raw surfaces. Four days after the operation bleeding commenced from the left side, where a clot had formed. Ice stopped the haemorrhage, but two days afterwards bleeding again set in, and from the same side where a clot had again formed. On removing the clot and rubbing the part freely with a wool-tipped probe, and then applying perchloride of iron freely, the bleeding finally

stopped. The author attributes the bleeding to the separation of the slough from an unhealthy wound.

W'm. Robertson.

Gerster, A. G. (New York).—*Acute Infectious Phlegmon of the Pharynx, or Angina Ludovici.* “Med. Rec.,” Mar. 11, 1893.

DR. GERSTER considers Dr. Kohn's case of “Acute Infectious Phlegmon of the Pharynx” a typical one of angina Ludovici, affecting the submaxillary salivary gland in its fascial envelope. He urges the necessity of early and ample incisions in angina Ludovici, made under anaesthesia, in such a way as to expose and cut into the sub-maxillary gland. [No reference is made to the state of the teeth, which, according to Dr. Kohn's description, may have been the starting-point of the trouble.—ABs.]

Dundas Grant.

Kohn, S. (New York).—*Acute Infectious Phlegmon of the Pharynx following Follicular Tonsillitis — Death in Seventy-two Hours.* “Med. Rec.,” March 4, 1893.

THE patient presented himself the day after the onset of a “sore throat,” with pain in swallowing and speaking. There was characteristic follicular tonsillitis, with some oedematous swelling of the faucial pillars, of the glosso-epiglottic folds, and of the mucous membrane and submucosa of the left oro-pharynx. After expression of the plugs from the tonsils dysphagia still continued. Next morning there was swelling in the submental and left cervical and parotid regions. The gums on the left side of the lower jaw were oedematous, and some pus exuded by the sides of a few decayed roots of teeth. The pharyngeal swelling had disappeared, but articulation was impossible, and swallowing very difficult. The following morning the patient was dead before the proposed incisions were made, and without any observable struggle for breath. Unfortunately, no *post-mortem* examination was attainable. [Such distressing cases must have occurred in the practice of everyone of extensive experience. Their recognition is very difficult, and the ABSTRACTOR always bids his pupils to be prepared for the presence of this disease in cases in which the *discomfort in swallowing and speaking is greater than the visible throat trouble would account for.*] Dundas Grant.

Cant, W. J. (Lincoln).—*Case of Swallowing a Razor—Gastrotomy—Death.* “Lancet,” Jan. 7, 1893.

AN old woman of sixty-eight informed her friends that she had swallowed a razor. Attempts were made to detect its presence by means of a compass needle, but without result. Mr. Cant then administered twenty drops of dilute hydrochloric acid. After an hour the stomach was washed out, the washings collected, filtered, evaporated down, and redissolved. The presence of iron in large quantity was detected by the Prussian-blue test. Later on, the end of the razor could be felt; gastrotomy was performed, and the foreign body removed. The operation appeared both during life and at the *post-mortem* to have been perfectly successful as far as local conditions were concerned, but the patient succumbed after five days from exhaustion, due to antecedent haemorrhage (she was a

"bleeder", to necessary restraint from food at her advanced age, and to mitral disease.

Dundas Grant.

Prettyman, J. S. (Milford, Del., U.S.A.)—*Œsophageal Stenosis.* "Med. Rec.," Feb. 4, 1893.

FOR impaction of a foreign body—such as a peach-stone—the writer recommends the administration of an enema of an ounce of the fluid extract of lobelia inflata in ten ounces of warm water, repeated as often as is necessary till emesis is produced. "The medicine relaxes the œsophagus, and the vomiting rushes the obstruction out in a handsome manner."

Dundas Grant.

Butlin (London).—*Removal of a "Pressure Pouch" of the Œsophagus.* "Brit. Med. Journ.," Apr. 29, 1893.

IN this case of "pressure diverticulum" of the œsophagus the operation consisted in a long incision on the anterior border of the left sternomastoid muscle, the omohyoid, and superior thyroid artery, being divided. The pouch was easily found and separated from the tissues in which it lay. As the pouch was cut away the opening into the gullet was closed with fine silk sutures. The patient made a rapid recovery. The author claims that this operation is the first of the kind performed in this country. No other kind of treatment was found efficacious, more than half of such cases dying from starvation. There was no paralysis in this as in instances cited of pharyngotomy. These pouches sprang from the junction of the pharynx with the œsophagus.

Wm. Robertson.

Abbe, R. (New York).—*A New and Safe Method of Cutting Œsophageal Strictures.* "Med. Rec.," Feb. 25, 1893.

BY means of a gastrostomy opening a bougie is passed up the œsophagus (often possible from below when on account of pouching it is impossible from above). The bougie is made to emerge by the mouth, where it is withdrawn, bringing with it the end of a string of heavy-braided ligature silk previously fastened to its lower extremity. The two ends of the string are drawn tightly upwards and downwards so as to press and cut through the dense tissue forming the stricture, while a large bougie is pushed up at the same time. A very striking case is narrated, in which things went on so well that the gastric fistula was closed by operation eight weeks after the gastrostomy, the patient being able to pass large bougies and to swallow naturally. [It seems as if this method was only adapted for slitting tissues on the anterior wall of the œsophagus.—ABS.]

Dundas Grant.

NOSE AND NASO-PHARYNX, &c.

Wright, Jonathan (Brooklyn).—*Nasal Douches and Sprays.* "Med. Rec.," Jan. 14, 1893.

DR. WRIGHT stands up for the use of alkaline nasal douches, holding that the first step in treatment is cleansing the passages, and also clearing the

orifices of the mucous glands. He quotes the contrary opinions of various authorities as to the after-treatment of intra-nasal operations. Personally he considers the presence after operations of plugs, powders and eschars as irritating, and considers "that intra-nasal irrigation after operations is the more rational procedure" (except when haemorrhage calls for the use of an antiseptic tampon), having rarely, if ever, seen any septic trouble follow an intra-nasal operation when this plan is carried out. [Dr. Wright's experience must surely have been an exceptionally happy one. Many cis-Atlantic operators date their comparative freedom from sepsis only from the time of their proscribing the post-operation nasal douche.—ABS.] Certain contra-indications and precautions are offered, which are self-suggestive. The recommendation of the douche is very much tempered by the precaution, "Never allow the patient to use any kind of syringe or douche at home which exerts pressure upon the stream of water. With the head thrown back, allow the water simply to run down-hill over the convexities of the turbinated bones, and along the nasal floor." For "office" use he greatly prefers the post-nasal syringe. Oily-sprays meet with great favour, as they do three things:—(1) They coat the mucous membrane; (2) they probably lubricate the orifices of the ducts; (3) they are good vehicles for volatile substances. He does not believe in them as vehicles for antiseptics, the septic material being protected by a watery layer from the oily application, and oil and water will not mix. [May not the water pick up some of the antiseptic material from its oily vehicle?—ABS.] On the whole, the indication for the watery nasal douche is the presence of forms of chronic rhinitis characterized by clogging of the glandular conduits. [Typical dry rhinitis with or without atrophy.—ABS.]

Dundas Grant.

Teets, C. E. (New York).—*Nasal Punch-Cutting Forceps.* “Med. Rec.” Feb. 11, 1893.

STRONG punch-forceps, the lower—female—blade having teeth along the cutting edge, the upper having two long sharp pins in its centre. The instrument is thus prevented from slipping off the projection it is employed to remove.

Dundas Grant.

Watson, Spencer (London).—*An Unusual Case of Nasal Polyposis.* “Brit. Med. Journ.” Apr. 29, 1893.

THE patient from whom the polypus in question was removed was a man aged fifty, who had suffered from double nasal obstruction for two years. Finding it impossible to snare the growths, which extended into the post-nasum, the author removed them with his ring-knife. The polypi, which were large, presented finger-like processes, an arrangement obviously caused by pressure. [Many operators will no doubt, demur to this feature being spoken of as “unusual.”—REP.] *Wm. Robertson.*

Woakes (London).—*Further Observations on Necroizing Ethmoiditis.* “Brit. Med. Journ.” June 10, 1893.

THIS notice furnishes a short *résumé* of the views of the author on the subject referred to, and a reference to past microscopical research into

its condition. The whole subject has before been discussed so fully in these pages that further remark seems unnecessary. [Some of the clinical features of necrosis of bone, as observed in other regions, such as, e.g., bad smell, said to be absent always in these cases by some observers, is now and then actually present. Such a case came quite recently under the observation of the reporter. The case was that of a man aged thirty-six, with polypi in both nostrils. In the right naris they were large and complicated, with a foul-smelling discharge, and the septum was extremely deflected into the left naris, which lodged a small solitary polypus. After clearing out the polypi in the right naris the middle turbinal was observed swollen and felt baggy to the probe, and on pressure pus oozed from its median aspect; with cutting forceps the whole turbinal was readily removed piecemeal. The bad odour proceeding from each portion as it was extracted was characteristic enough of diseased bone. The fragments of bone enveloped in myxomatous tissue or loose-like sequestra in any other region, all to the eye seemed necrotic. The question of the existence of syphilis in this case was carefully inquired into. There was no evidence of such.—REPORTER.]

Wm. Robertson.

Ball (London).—*Chronic Nasal Discharge in Children.* “*Brit. Med. Journ.,*” May 20, 1893.

OUT of fifty cases, all under fifteen years of age, twenty-seven were cases of chronic purulent rhinitis, and of these twenty-three were affected with adenoids, which must be considered the great predisposing cause. There were nine cases of inherited syphilis, eight of simple ozæna, four of foreign bodies or rhinoliths, and two of antrum suppuration.

Wm. Robertson.

Downie, Walker. — *Fractures of the Nose and their Treatment.* “*Glasgow Med. Journ.,*” Mar., 1893.

THE author describes cases, the structures involved, deformity, symptoms, and treatment. He uses a mask made of sheet lead to keep the parts in position, after reducing them to the normal position. An internal as well as an external support is applied.

J. Macintyre.

Dionisio, Prof. T.—*On Nocturnal Enuresis, in consequence of Naso-Pharyngeal Troubles.* “*Gazetta Medica di Torino,*” June, 1893.

THE interest of the case is shown by the following short history:

A girl, ten years old, who had for many years complained of nasal catarrh, for two years was obliged to sleep with opened mouth, and often during the night involuntarily passed urine. Posterior rhinoscopy showed hypertrophy of the pharyngeal tonsil, and the pressure of adenoid vegetations. There was also polypoid degeneration of the turbinate bones. Appropriate treatment ended in complete recovery.

Dionisio is of opinion that the agitated sleep, in consequence of nasal obstruction in subjects predisposed to a neuropathic condition, is the cause of stimulation of the full bladder, and enuresis is the consequence

Massei.

McBride. — *Antral Disease.* Odonto-Chirurgical Society of Scotland (*Transactions*), 1893.

AN excellent introduction to a discussion in this society. The views at present held are taken up, and the etiology, pathology, as well as treatment, receive due attention. The author's ideas about treatment are useful. It is noteworthy that he prefers the exploration from below after removal of the teeth, but, of course, he pays due attention to the openings through the outer wall of the nasal cavity.

J. Macintyre.

Swain, Paul (Plymouth). — *Parotitis following Injury to the Abdomen.* “*Lancet*,” March 11, 1893.

THE parotitis which did not reach suppuration, came on three weeks after a fall from a pony, occasioning separation of the lower epiphysis of the left femur in a child aged eleven. There were abdominal symptoms, the nature of which is not at all clear from the description.

Dundas Grant.

LARYNX.

Smith, W. Ramsay (Edinburgh). — *The Course of the Inferior Laryngeal Nerve.* “*Lancet*,” March 11, 1893.

Dr. SMITH criticizes the late Dr. Herbert Davies's ingenious theory concerning the inferior laryngeal nerve on various grounds, including the following:—That the rima does not alter appreciably during normal respiration, which can go on after section of both inferior laryngeal nerves; that the two nerves differ in length; that in the cases in which the right nerve does not recur, but goes straight to the larynx, respiration and voice production are not affected; that the shorter superior laryngeal nerves have to act in concert with the recurrents. He quotes several other “pretty pieces of physiology” as instances of theories which he considers unsupported by facts. [Probably Dr. Smith has taken more seriously than was intended by the author this interesting instance of the fitness of things, and in his capacity of iconoclast has attacked as an idol what was offered rather as a work of art.—ABS.]

Dundas Grant.

Wolstenholme (Manchester). — *The Larynx of a Horse, its Subject of Roaring,* &c. “*Brit. Med. Journ.*,” Apr. 29, 1893.

THE horse also suffered from acute laryngeal dyspnoea. There was extreme atrophy of the arytenoid and posterior crico-arytenoid muscles of the left side.

W'm. Robertson.

Herschell, George (London). — *A Case of Nocturnal Spasm of the Larynx in an Adult.* “*Lancet*,” May 13, 1893.

THE patient, a somewhat neurotic person, was attacked occasionally in the night with inspiratory dyspnoea, especially if he had committed any excess in the indulgence of the dinner or the cigar. He was relieved at once by free eructation, but in the absence of this he was unable to

sleep till worn out by exhaustion. The attacks were more liable to occur when he lay on his back. Such attacks are sometimes attributed to the influx of saliva into the air-passages, but this cause was excluded in the case quoted by the attitude and by the effect of sleeping with a dentist's saliva evacuator in the mouth, no dyspnoea coming on while this singular experimental precaution was practised.

Dundas Grant.

Rand, N. W. (Monson, Mass., U.S.A.)—*A Remedy for Stertorous Breathing.*
“Med. Rec.,” March 4, 1893.

IT was found that propping up the chin by means of a cardboard support placed on the chest the stertor in an old man dying of apoplexy was quite stopped, to the great relief of the relatives, and possibly of the patient as well.

Dundas Grant.

Chappell, W. F. (New York).—*A Case of Eversion of the Ventricles of the Larynx, with a new method of Treatment.* “Med. Rec.,” Jan. 7, 1893.

EVERSION of the ventricles, causing serious difficulty in breathing and other laryngeal symptoms, occurred suddenly during a severe fit of coughing in a woman aged forty-eight, who had suffered from severe cough for four years and had a distinct syphilitic history. Intubation gave relief to the dyspnoea but could not be kept up, and the everted ventricles were removed by means of a laryngeal guillotine of the ring form with an outward convexity. Complete relief followed, but in six months the patient died from laryngeal obstruction, a large mass of cancerous tissue occupying the position of the right vocal cord.

The same instrument was used with advantage for the removal of portions of the vocal cords in a case of bilateral paralysis.

Dundas Grant.

Semon, F. (Lond. m.).—*Treatment of the Ulcerative Lesion in Laryngeal Tuberculosis, with Some Remarks on the Constitutional Treatment by Large Doses of Creosote.* “Lancet,” March 11, 1893.

DR. SEMON recommends very strongly the internal and local treatment above mentioned, and narrates several good illustrative cases. The creosote must be perfectly pure, and is administered in one-minim capsules or pills thrice daily after meals, the number of capsules being gradually increased till nine, twelve, or even fifteen are taken daily. The lactic acid is applied in the usual strengths on absorbent wool, firmly wrapped round rectangular forceps, and is rubbed with a fair amount of force into the floors of the ulcers. In cases where there is much œdema he allows this to subside, and prefers inhalations or insufflations of sedatives. Granulation tissue is scraped away by means of Krause's or Heryng's laryngeal curette previously to the application of the lactic acid.

[It is surprising that the systematic creosote treatment of tuberculosis should have received so little notice in our medical periodicals, compared with the prominence given to it in those appearing in France, Germany and America, as our readers must have observed from numerous abstracts in this Journal. The abstractor has used it both in private and hospital practice with every satisfaction. For cases in which the price of the

capsules is a consideration he prescribes a modification of the pharmacoëal mixture, which is quite tolerable. The merits of guaiacol have often been discussed in our abstracts.—*Abs.*] *Dundas Grant.*

McBride.—*Pachydermia of the Larynx.* “Edinburgh Med. Journ.” 1893.

THE writer first gives a history of the literature, and then describes four cases seen in his own practice. These are described, and five drawings given. In laryngoscopic examination he considers the following points of importance in arriving at a differential diagnosis. (*a*) Idiopathic pachydermia : (1) Swelling arises gradually, without any definite margin so far as shape goes (although the colour is distinctly defined). (2) The colour is distinctly defined, being of a whitish grey, with just a tinge of pink. (3) The outline is smooth, or finely granular, with sometimes a furrow or cleft. (*b*) Inter-arytenoid tumour of phthisis, or, if preferred, phthisical pachydermia. (1) Swelling is distinctly a tumour, with more or less well-defined margin. (2) The colour is usually red or pink. (3) The outline may be smooth or coarsely papillary. *J. Macintyre.*

Dabney, S. G.—*Tumour of the Larynx from an Avoidable Cause.* “Med. News,” May 6, 1893.

IN this case the patient, a man aged thirty-five, was suffering from loss of voice. There was no cough, pain, or dyspnoëa. A scar was found upon the neck, just below the thyroid cartilage. Two months previously he had been assaulted while in a drunken stupor. At that time the wound in the neck had been sewn up, and rapid recovery had taken place. The voice, however, had not returned. On laryngoscopic examination a red mass, in size between that of a raspberry and a cherry, was seen attached to the anterior wall, below the true cords, and corresponding in position with the external scar. This mass was secured in the forceps, and in its centre a suture about an inch in length was found embedded. Complete restoration of the voice followed. *H. Milligan.*

Cullingworth (London).—*A Case of Tracheotomy in an Infant Three Days Old.* “Lancet,” Jan. 28, 1893.

IN a new born child, with cleft palate and considerable cyanosis, there were repeated attacks of inspiratory dyspnoëa. Tracheotomy was performed eighty-three hours after birth, and the child lived for over twenty-three days, when it died with pleuro-pneumonia on the right side. The dyspnoëa was attributed to the short malformed tongue falling back on the epiglottis, and thus closing the aperture of the larynx. *Dundas Grant.*

Ricci, A.—*Tracheotomy preceded by Intubation in Children of Medium Age affected with Croup.* “Bollettino delle Malatt. dell’ Orecchio, della Gola e del Naso.” Firenze, May, 1893, No. 5.

AFTER a short consideration of the indications for the operation in croup, and of those cases in which no operation is to be performed, the author concludes that the last word has not yet been pronounced for intubation. He relates three interesting histories of children five-and-a-half, seven, and five years old (the first two recovered) in which intubation was done

before tracheotomy. This latter was a very easy one; breathing restored; bleeding controlled; chloroform administered.

The author is of opinion that in children not over three years of age intubation is preferable; beyond this limit tracheotomy gives better results, and, when preceded by intubation, is extremely facilitated.

Massei.

Jennings, C. G—(Detroit). *Two Unusual Cases of Tracheotomy.* “Archiv. of Pediatrics,” June, 1893.

Two cases are reported. (1) A girl of eighteen with scarlatina, severe cervical adenitis, œdema of the pharynx, which was covered with pseudo-membrane, and œdema of the epiglottis. Dyspnœa was great, and increased upon an attempt at intubation. Convulsions and apparent death followed. The trachea was quickly opened, and a catheter passed into the trachea, and the lungs were inflated by the surgeon. Expiration was produced by pressing the walls of the chest. After a dozen attempts a voluntary inspiration occurred, and recovery followed. A deep collection of pus was found under the sterno-mastoids, incision into which was followed by subsidence of the pharyngeal and laryngeal œdema; recovery ensued. (2) A child, aged five, had whooping cough, and mild pharyngeal diphtheria in the third week. It spread to the larynx, causing great stenosis. Tracheotomy was performed and the windpipe cleansed. Recovery followed. Tracheotomy was selected in preference to intubation on account of the pertussis. The paroxysmal coughing almost entirely ceased after the introduction of the tube.

R. Norris Wolsfenden.

Downie, Walker.—*Epitheloma of Left Vocal Cord—Laryngotomy—Removal.* “Glasgow Med. Journ.,” May, 1893.

THE patient had a tumour “projecting into the glottis above three-eighths of an inch in length.” Tracheotomy was first performed on the 13th September, 1892, laryngotomy a week later, and the growth removed with curved scissors. In May, 1893, there was no recurrence. *J. Macintyre.*

Bond (London).—*Case of Partial Excision of Larynx for Chondro-Myxoma.* “Brit. Med. Journ.,” Mar. 6, 1893.

THE patient, a man aged forty-four, showed in 1889 right adductor paralysis of vocal cord, for which no cause could be determined. In August, 1891, the inspiration was stertorous and the voice hoarse. Inside the larynx a mass of growth, hard to the probe, could be seen covering the posterior part of the left vocal cord and springing from below the cords, externally and posteriorly to the right arytenoid a large swelling was seen, with œdematosus mucosa over it, pushing the right arytenoid forwards and inwards. At the end of August, 1891, the lower and posterior part of the right thyroid plate was felt to be harder and more prominent than the left. A piece of the growth was removed internally, and found to be myxo-chondromatous in structure. In February, 1892, tracheotomy for dyspnœa was performed. On September 30th, 1892, the growth and most of the larynx was removed, as follows: A vertical cut into the larynx was made first, and the growth was found to be perforating

the crico-thyroid membrane in front. The thyroid plates were thinned by pressure, and the whole lumen of the larynx completely occluded by a large hard mass springing primarily from the anterior surface of the posterior part of the cricoid. It was decided to entirely remove the cricoid cartilage and growth, the two arytenoids, and the front of the lower part of the thyroid. The mucous membrane and the true cords stretched across the tumour were also removed. Both recurrent laryngeal nerves were cut. The epiglottis and part of the thyroid cartilages were left. The growth removed weighed $5 \times 1\frac{1}{2}$, and measured about $1\frac{3}{4}$ inches from above down, its oblique diameter from before back being $1\frac{3}{4}$ inches. The patient made a rapid recovery, the transverse wound and part of the vertical one healing by first intention. On the ninth day, on removing the feeding tube, he had no difficulty in eating a chop. An effective silver larynx was made by Mayer and Meltzer. The man was now in good health, having gained many pounds in weight, and could speak well in a monotonous and husky, but distinct, voice, phonation seeming to be performed by two antero-posterior folds of mucosa behind the epiglottis, which separated and vibrated when a current of air was forced between them from below.

Wm. Robertson.

Stevenson, Thos. (London), and **Carling, Wm.** (London).—*A Case of Homicidal Strangulation in an Adult with Extensive Fracture of the Larynx.* “Lancet,” Feb. 25, 1893.

A MAN, aged forty-two, was strangulated by violence in the following way:—The murderer, standing in front of him, placed his left hand over the victim's mouth, and, with his right hand inserted between the collar and neck, grasped or pressed with force on the wind-pipe. No cry for help could thus be raised, and the victim was probably too inebriated to offer any material resistance. The *post-mortem* examination hardly showed any external marks of violence, but there was much extravasation of blood amongst the tissues and muscles of the neck. The hyoid bone was fractured on the right side just external to the lesser cornu. The thyroid cartilage was broken in three places. One fracture ran downwards and to the right from the notch, and both the superior cornua were broken off, the fragment on the left side being the larger, whereas the displacement was greater on the left side. The cricoid cartilage was completely snapped five-eighths of an inch to the right of the median line.

Dundas Grant.

THYROID GLAND AND NECK.

Westmacott (Manchester).—*Cysts of Thyro-Glossal Duct.* “Brit. Med. Journ.,” Apr. 29, 1893.

THESE were excised from two children—a boy and a girl eight years and two and a quarter years old respectively. The author pointed out that parts of this foetal structure might persist as accessory thyroid bodies, or,

at a later period of life, might form cystic growths. Sections of the cyst wall showed alveolar with columnar epithelium lining them in places. The wound [site not stated—REP.] in each case healed by primary union.

Wm. Robertson.

Davies, Arthur T.—*The Treatment of Myxedema.* “Lancet,” Feb. 11, 1893.

DR. DAVIES recommends the administration of thyroid gland in the form of the powdered dried extract on account of its portability and convenience, the avoidance of putrefaction or of disease in the gland, the minimization of nausea, such as is apt to follow the consumption of raw or cooked glands. He advises the patient to rest for an hour after taking the powder.

Dundas Grant.

Napier, Alex. (Glasgow).—*The Thyroid Treatment of Myxedema—The Selection of Thyroid Gland for Administration.* “Lancet,” Feb. 4, 1893.

DR. NAPIER calls attention to the fact that the thyroid gland is often the seat of disease, especially of a cystic character. He takes the precaution of examining beforehand the thyroids consumed by his patients. They are then minced in small pieces and administered in a little warm soup or beef-tea. He rejects the large dark blood-engorged thyroids sometimes met with.

Dundas Grant.

EAR.

Roberts, Nathan (New York).—*Pyrotanin in Ear Disease.* “Med. Rec.,” Jan. 28, 1893.

THE most to be said for the drug is that it is worthy of trial when the standard remedies fail, and it is of much less value than they are. He used it in a solution as weak as one in ten thousand. *Dundas Grant.*

Dalby, Sir W. (London).—*Strange Incidents in Practice.* “Lancet,” Feb. 4, 1893.

Two cases are narrated of *sudden loss of hearing* produced by emotional shock. This loss of perception while the conduction remains good is on account of its bilateral characters due to some change situated at least as deep as the medulla. The suspension of the hearing faculty is analogous to that of the sense of smell, of which an instance due to emotion is also quoted. Sir W. Dalby has known the hearing to be partially suspended—and in a high degree—by such causes as a loaded state of the intestines, sleeplessness, gouty irritability of the brain, the presence of lumbrixi, etc., returning on the removal of these various conditions. He ascribes the deafness to a congestion of the cerebral vessels, and draws an analogy with the irrecoverable loss of hearing occasionally occurring in typhus and mumps.

In a case in which no self-mutilation was at all probable three pieces of *a sewing needle* were found embedded in the inflamed tissues of the meatus, the patient being utterly unable to explain their presence.

Pure hysterical deafness was only met with once. Active measures of treatment were not permitted, and sudden recovery took place after six months. The patient had a year previously been similarly "blind" for a number of weeks.

Loss of speech, dating from boyhood, was met with in a robust middle-aged man, and the faculty suddenly returned. No explanation is suggested. Hearing and intelligence were perfect, and he had always communicated his ideas by writing. [The abstractor had recently the opportunity of observing a similar case in the clinic of Mr. Lennox Browne. The speechlessness—not mere voicelessness—had lasted in an elderly nervous preacher for several years, and was completely and instantly removed by a rousing application of faradism.]

Dundas Grant.

Miles. — *The Varieties of Vertigo.* "Med. Rec." Feb. 18, 1893, from "Philadelphia Polyclinic."

(1) VERTIGO arising from *intra-cranial disease*, chiefly tumour or pachymeningitis : (2) *ocular vertigo*; (3) vertigo from *disease of blood-vessels* (arterio sclerosis); (4) vertigo from *diseased states of the blood* (anaemia, hyperæmia, lithæmia, toxæmia); (5) vertigo due to *irritation reflected to the labyrinth or brain* from more or less distant parts (nasal, pharyngeal, laryngeal, gastric, intestinal, etc.) These reflex vertigos are thought by the writer to be often toxic in origin. [No mention is made of vertigo occasioned by disease of the internal or middle ear.—ABS.]

Dundas Grant.

Schneider, Joseph (Milwaukee).—*Influence of Diseases of the Ear upon the Mental and Physical Development of the Child.* "Med. News," April 8, 1893.

THE frequency of ear defects is shown by reports of authorities:—

Burkhard-Merion found in	1950 children
85 with hearing impaired through scarlatina.	
Von Reichard	1055
2237 could hear only from 0 to 18 inches a watch that should be heard at 60 inches.	
Weil	6000
30 per cent. with a defect.	
Sexton.....	570
13 per cent. with pronounced defect of hearing.	
Narrell.....	491
72 with defective hearing on both sides.	
53 on one side only.	
Bezold.....	1289
296 with abnormalities of the aural function, of which in 241 instances the children and the teacher were quite unaware.	

Gellé, of Paris, examined the hearing-power of some "good" and some "bad" pupils. Of 20 "bad" ones, six could only hear the watch tick at half a metre, and of the "good" ones all could hear the tick beyond this distance. Of seven very lazy and inattentive pupils, six had very defective hearing.

Schneider finds that of the children examined, two per cent. were suffering from suppurative otitis, and that 42 per cent. showed a favourable progress under proper treatment. [The inferences drawn from these facts are sufficiently obvious.—*ABS.*] *Dundas Grant.*

Friedenwald, H.—*Cholesteatoma of the Ear.* “The Medical News,” Mar. 11, 1893.

THIS disease was found by Virchow in nearly one-third of the number of fatal ear cases examined by him. The disease presents itself as a bright white growth of pearly lustre, with a smooth surface, and composed of layers of cells arranged concentrically. It is made up of layers of large flat non-nucleated polyhedral cells. Between the layers of cells cholesterine crystals are found. In the ear these growths are found in the tympanic cavity and in the mastoid cells. They cause erosion of the surrounding bone and often produce large cavities.

Cholesteatoma is frequently associated with chronic suppuration of the middle ear, especially in its upper segment, with perforation of the membrana tympani and with polypi in the middle ear. The theories as to the origin of the cholesteatomatous masses are very various, and no one theory appears to be a sufficient explanation of the condition.

A diagnosis of this condition can be made when the masses are seen in the middle ear or auditory canal, or when smaller or larger flakes made up of the characteristic cells are washed out of the middle ear, especially when they are regularly lamellated. The treatment consists in thoroughly cleansing the middle ear with warm antiseptic injections by means of special intra-tympanic syringes. Injections through the Eustachian tube are also serviceable. In some cases the ossicles will have to be removed, while in still other cases it may be necessary to open the mastoid antrum. *W. Milligan.*

Dench.—*Epithelioma of the Auricle.* “Archiv. of Otology,” Vol. XXII., No. 2.

THE patient, a female, aged sixty-three, consulted the author on account of a discharge from the left meatus, which had been present for about six weeks. For some time there had been constant and increasing pain in the left ear, extending gradually until it involved the entire left side of the face. Examination revealed the surface of the meatus almost completely closed by a firm mass arising from the base of the tragus upon its internal surface and involving to some extent the inferior and posterior margins of the meatus. The surface of the growth was ulcerated over a small central area. There was considerable offensive discharge. Careful examination showed that the middle ear was not involved. There were no enlarged glands, and the whole mass was freely movable. The patient was accordingly kept under observation, but at the end of two weeks the tumour was found to be decidedly larger, and had extended so as to involve the auricle as far as the base of the antitragus. The superficial ulceration was also rapidly extending. Microscopic examination of a small portion which was removed revealed the characteristic structure of epithelioma. An incision was made from the superior border of the tragus forward and downward through the tissues of the cheek,

care being taken that it lay well outside the line of induration. The posterior portion of the incision was rapidly deepened until it extended into the meatus. Great care was taken so as to avoid opening the temporo-maxillary articulation. From the end of this horizontal incision a second was made extending downwards and backwards to the insertion of the lobule. The neoplasm was in this way dissected out. Recovery was uneventful. The special points of interest the author lays stress upon are (1) the rapidity of the growth and (2) the absence of glandular enlargement, which last he considers an infrequent complication of malignant tumours in this location. He also considers that malignant disease of the external ear is more amenable to surgical interference than the same affection in other portions of the body. *W. Milligan.*

Crawford, W. S. (Leeds). — *Squamous Epithelioma of the External Ear.* “Lancet,” Mar. 11, 1893.

A SMALL warty growth appeared in the upper part of the fossa of the helix in a man aged sixty-four. Seven months later he received a blow on the part, and for other seven months it grew till the whole of the auricle, except the concha and lobule, was occupied by an irregular, soft warty growth, covered with foetid pus, and a few small blood-clots, and emitted an extreme foetor. The ear was sliced off, and on section showed well-marked squamous epithelioma. *Dundas Grant.*

Ellis, W. Gilmore (Singapore). — *Ulcerated Tuberculous Affection of the Lobe of the Left Ear, with Anesthesia of the Same Side of the Face, Complicated with Scabies.* “Lancet,” Feb. 25, 1893.

A MULATTO boy, aged twelve, with ulceration of the lobe of the left ear, which was swollen, livid, nodulated, and itched dreadfully, dated this condition from a mosquito bite received fifteen days previously. For about a year he had noticed almost complete anaesthesia of the left half of the face, above the level of the angle of the mouth. Cover-glass preparations from the serum revealed two acari scabiei under low power, and numerous bacilli lepræ under a one-twelfth inch homogeneous oil-immersion lens. The bacilli were very like the bacillus tuberculosis, but somewhat smaller, straighter, and less rounded. There was a family tendency to phthisis, and there was proximity but not contact with lepers. A month later the anaesthesia was more marked and the lobe was thicker, but the ulceration was tending to heal. Some slight thickening of the second toe of the right foot, which had lost its nail, was noticed. Mercurial ointment was the only treatment used.

[The writer's description would lead one to suppose that the word “leprosy” had been accidentally omitted in the title of the paper.—*ABs.*] *Dundas Grant.*

Greene, H. E. — *Foreign Body in the Tympanum.* “New York Med. Journ.,” March 25, 1893.

IN this case the patient while passing some alder bushes suddenly felt what seemed to be a terrible blow in the ear. The pain produced was intense, and vertigo was so great that he staggered all the way home. The pain disappeared in a few hours. On examination shortly after, a

faint streak was seen on the posterior segment of the membrane. The hearing was almost normal. Three weeks after this the patient was seen again, when the ear was found to be discharging and a perforation was seen *below the original seat of injury*. A month later the patient again returned complaining that his hearing was poor, and that the discharge was offensive. Granulations were found springing from the mucous membrane of the middle ear. The perforation was enlarged, and a fine stream of fluid injected into the middle ear. A dark object at once appeared, and on being removed with the forceps proved to be a twig of alder ten millimetres long and two millimetres in diameter. The discharge soon ceased and the hearing returned.

W. Milligan.

Parkin, Alfred. — *Cases illustrating the Treatment of Middle Ear Disease.* “The Sheffield Med. Journ.,” Vol. I., Part 3.

In this article the author insists upon the importance of proper surgical treatment in cases of acute and chronic suppurative middle ear disease. In acute cases, where symptoms of retained secretion in the middle ear are present, immediate paracentesis of the membrana tympani should be performed. In cases where pain over the mastoid process is complained of, especially on firm pressure over the antral area, and where there is a rise of temperature, the mastoid antrum should be opened and the parts properly drained.

In chronic cases, when the milder methods of treatment fail, the operation of antrectomy with gouge and mallet should be performed. The author calls attention to the now accepted theory that many of these chronic cases are tubercular in nature or become so.

W. Milligan.

Black, G. Melville (Denver). — *Removal of the Drumhead and Ossicles in Diseases of the Middle Ear.* “Med. News,” Apr. 15, 1893.

In non-suppurative cases the indications for the operation are not so favourable as in suppurative. The object is “to remove a transmitting mechanism that, from its diseased condition, has become an obstruction.” In the suppurative forms the operation is of the utmost value, especially in the “attic” cases. “In this variety, as well as in all chronic suppurative diseases of the middle ear which do not improve under the usual methods of treatment, dead bone is the cause of its chronicity.”

Two suppurative cases are narrated with good result. Of three non-suppurative cases, one improved sufficiently to understand the ordinary voice at six inches, whereas previous to operation he could not understand it at all. In another, unbearable tinnitus was partially relieved, and conversation—previously only a jumbled noise—could be carried on at a distance of one foot. A slight improvement in the hearing took place in a third case. There was muco-purulent discharge for about a fortnight after the operation. The membrane then began to regrow, but repeated applications of trichloracetic acid appeared to prevent its healing over. Occasionally granulations had to be destroyed with chromic acid. The tympanum was left “dry and white, with a good hole existing in the drumhead.” [The slight improvement in the very advanced cases, on which alone operators feel justified in trying this procedure, gives hope

that in earlier cases brilliant results may be obtained as the scope of the operation becomes more clearly recognized.—*ABs.*] *Dundas Grant.*

Burnett, C. H.—*Partial Myringectomy and Removal of the Incus and Stapes for the Relief of the Lesions of Chronic Catarrhal Otitis Media.* “*Med. News,*” May 13, 1893.

THE author, after detailing the histories of several cases operated upon, and his method of procedure, sums up his experience as follows:—

(1) The operation of partial excision of the membrana tympani (myringectomy of the posterior superior quadrant) is practically unattended by reaction.

(2) Reaction not attending this modification of excision of the membrana, regeneration of the membrane is less likely to occur than when total excision of the membrana is performed.

(3) Removal of the malleus is not necessary for relief in cases of simple chronic catarrhal otitis media.

(4) The removal of the incus alone, or of the incus and the head and crura of the stapes is followed by results as good as when the incus and the entire stapes are removed.

(5) Displacement of the incus and leaving it in the drum cavity, when the stapes is removed in part or in whole, is likely to be followed by inflammation of the middle ear.

(6) Removal of the incus alone, the membrana, malleus, and stapes being left *in situ*, gives more space in the drum cavity, increases its resonance, and permits free access of sound waves to the stapes, thereby improving the hearing.

(7) The relief of tinnitus and aural vertigo is very probably due to the liberation of the stapes from the impacting weight of the incus forced inward and held so by the retractive power of the indrawn membrana tympani and malleus.

W. Milligan.

Sexton (New York).—*Remarks on Otoscleroneotomy and Otoneurotomy.* “*Med. Rec.,*” Feb. 18, 1893.

THE former consists in the removal of part or all of the sclerosed and ankylosed conductors of sound in chronic catarrhal otitis media, the latter in the excision and removal of the necrotic conductors of sound in chronic purulent otitis media. The writer insists on the necessity for general anaesthesia during the operation, and for the utmost restriction of diet both before and after, until the tendency to regeneration of the membrane has ceased. He attaches little value to operations for the mobilization or removal of the stapes. He [as usual—*ABs.*] refers the reader to his work on “Diseases of the Ear” for the details of his method of operation. [The “remarks” amount to a signalization of the author’s general satisfaction with his own results.—*ABs.*] *Dundas Grant.*

Adams, John L.—*A Case of Thrombosis of the Lateral Sinus.* “*Archives of Otology,*” Vol. XXII., No. 2.

THE patient, a female, aged twenty, presented herself at the author’s clinic complaining of pain in the right ear and right side of the head. Examination showed a small quantity of secretion in the external meatus,

the walls of which were swollen. The membrana tympani was perforated in the posterior inferior quadrant. There was marked tenderness over the mastoid process and slight induration. Temperature $101\cdot2^{\circ}$ F., pulse 76. The patient was advised to come into hospital, but refused. A few days afterwards she again presented herself and was admitted. The history given at this time was that the ear had been discharging freely for some months until within the last four weeks, when the discharge had entirely ceased. Seventeen days before admission she began to have severe headaches, and for ten days before admission the pain had been specially marked in the right ear and upon the right side of the head. She also had had repeated attacks of vomiting and shivering. On admission there was found to be marked mastoid tenderness with slight induration. The walls of the meatus were swollen, and the membrane was seen to be perforated in the posterior inferior quadrant. Temperature 101° F., pulse 78. There was severe pain at the back of the neck upon any movement of the head. The patient was put under an anaesthetic and the mastoid antrum opened up. A small quantity of pus was found. The drainage was established through antrum, middle, and external ear. The day after the operation the patient was noticed to have convergent squint and hyperæmia of both optic discs. The temperature varied from $100\cdot4^{\circ}$ to $103\cdot5^{\circ}$, and the pulse from 70 to 78. The temperature of the right side of the head, taken with a surface thermometer, was found to be one degree higher than upon the left side. The reflexes were the same on both sides of the body. The mental condition was dull and somnolent, but when roused the patient was able to answer questions correctly. She was seen in consultation by several physicians, and the diagnosis of intra-cranial abscess was made. The temporo-sphenoidal lobe was first explored, but no pus was found. The mastoid wound was accordingly enlarged in a backward direction, and the surface of the lateral sinus was exposed. It was found to be thickened and inflamed. Foul plum-coloured venous blood was withdrawn at this stage from the sinus. The internal jugular vein was accordingly ligatured in the neck in two places and divided. The lateral sinus was incised (for about 1 inch), and found to contain a septic thrombus. The sinus was now irrigated, and then packed. For some days the condition of the patient varied, but gradually she became more and more comatose, and died five days after the operation. At the autopsy two-thirds of the superior surface of the right cerebellar lobe was found covered with thick pus extending forward to the crus cerebelli. The tentorium and the dura of the cerebellar fossa corresponding with the area of purulent deposit upon the cerebellum were also covered with pus. There was an opening through the dura into the cerebellar fossa at a point corresponding to the opening through the skull from the mastoid cells.

W. Milligan.

ASSOCIATION MEETINGS.

PROCEEDINGS OF THE LARYNGOLOGICAL SOCIETY OF LONDON

Ordinary Meeting, May 10th, 1893.

FELIX SEMON, M.D., F.R.C.P., Vice-President, in the Chair.

E. CLIFFORD BEALE, M.B., }
SCANES SPICER, M.D., } Secretaries.

Present—16 Members and 3 Visitors.

The following gentlemen were elected Members of the Society :—

HERBERT TILLEY, M.D., F.R.C.S.
RICHARD LAKE, F.R.C.S.
R. S. CHARSLEY, M.R.C.S.

The following candidates were proposed for election :—

CHARLES ROTHERAM WALKER, M.D., Leytonstone.
DENNIS EMBLETON, M.R.C.S., Bournemouth.
HENRY DAVIS, M.R.C.S., London.
VINCENT DORMER HARRIS, M.D., F.R.C.P., London.
WILLIAM ARTHUR AIKIN, M.D., London.

The minutes of the previous meeting were read and confirmed.

Dr. de Haviland Hall moved, and Dr. Dundas Grant seconded, a vote of thanks to Dr. Semon for his generous gift to the Society of twelve electric lamps. This was carried by acclamation, and Dr. Semon replied.

The following case was exhibited by Mr. Cresswell Baber :—

Cicatrix of Pharynx.

M. B., aged fifteen. At three and a half years of age the patient had severe scarlet fever with a very bad throat, and subsequently an attack of measles. Scarlatina left her with purulent discharge from either ear; also a difficulty in swallowing, which latter has not given her much trouble till recently. Admitted into the Brighton Throat and Ear Hospital November 7th, 1892. She takes soft food readily, but for meat requires an unusually long time. Liquids in small quantities are easily swallowed, but in large quantities produce a feeling of suffocation. Makes a slight noise during sleep. No dyspnœa. No reliable history of congenital syphilis. Oropharynx presents a broad white band extending across its posterior wall. Behind uvula it leaves a gap measuring some $\frac{1}{2}$ by $\frac{1}{4}$ inch. On depressing the tongue firmly the upper end of a second opening comes into view. Irregular granulations on sides of cicatrix. With laryngoscope the cicatrix is seen to extend to either side of the epiglottis, leaving a heart-shaped opening about half an inch across, through which the larynx is seen.

Nose.—Catarrh.

Ears.—A perforation of either membrane.

November 19th.—Under cocaine the lower opening in cicatrix was enlarged posteriorly by removal of a piece of the cicatrix of about the size of half a sixpence. The tendency to contraction was as far as possible prevented by systematic dilatation with the forefinger. The result is that the opening is slightly larger and the patient swallows quite well now, but still makes some noise during sleep. It was thought that a large ulcer on the posterior pharyngeal wall had, in healing, drawn the two sides of the pharynx together.

Dr. HALL thought no further treatment was advisable in this case.

Mr. CHARTERS SYMONDS referred to two cases of pharyngeal stricture—one in a syphilitic child, where the opening was small and annular, admitting the tip of the forefinger. The child could swallow freely through the opening. In the other the pharynx was closed at the root of the tongue by a thin web, in which was a small orifice. The palate was not adherent, and nasal respiration was possible. He did not think that dilatation by bougies was of any use in such cases.

Myxædema treated by Feeding with Fresh Thyroid Gland.

Mr. CRESSWELL BAER showed photographs of a patient, a married lady, aged fifty-seven, who had exhibited symptoms of myxædema for about ten years. First seen January 24th, 1893, in consultation with Dr. Uhthoff. Thyroid gland could not be felt.

January 27th.—Half lobe of raw sheep's thyroid was given. This was followed in about thirty hours by the usual "aching" all over the body. Temperature, which had been subnormal, rose, and a teasing, hacking cough came on. Examined on February 3rd the larynx and pharynx were found normal. No abnormal chest-sounds, except slight rhonchus. Tenderness on pressure over region of thyroid isthmus. Puffiness slightly diminished.

During next three weeks rather over half a lobe of gland was given.

On 26th her head began to feel queer, as if she was going out of her mind. She became completely changed from her usual manner, being very excitable, trying to lock herself into her room, and exhibiting symptoms resembling subacute mania, with sleeplessness. Seen March 4th she had a wild look about her eyes, but no delusions. Her appearance had greatly improved. There had been general desquamation, which was still going on, on hands and feet. Ordered ammon. bromid. gr. x, 4*itis horis*. Soon after this the head symptoms disappeared, sleep returned, and the patient gradually improved. One third of a lobe of thyroid given at longer intervals produced slight headache, but no further head symptoms. Previous to other treatment there had been no mental disturbance, and there is no insanity in the family.

Between January 25th and April 28th she lost 1 stone 1 lb. 6 oz. in weight. Very slight return of perspiration, which was absent before treatment. Some regrowth of hair on head. Marked improvement in brightness of intellect, quickness of movement, etc. The presence of tenderness over the region of the thyroid isthmus with cough and attacks of choking at

night are said to have occurred on and off for several years, and were perhaps temporarily intensified by the treatment.

Dr. CLIFFORD BEALE showed a case of myxedema successfully treated by small doses of simple glycerine extract of thyroid gland. Considerable laryngeal dyspnoea had at first been present, owing to œdema of the uvula, ary-epiglottic folds, and other parts of the larynx, which had subsided. The skin had been perfectly dry until small doses of pilocarpin had been given, after which sweating had been at first profuse but normal ever since.

Syphilitic Disease of Pharynx and Larynx in a Tubercular Subject.

Dr. CLIFFORD BEALE showed a patient with marked family history of phthisis, and a clear history of infection of syphilis four years previously. The pharynx was scarred and cicatrized, but the larynx when first seen presented all the familiar appearances of tubercular disease, except for detachment, and contraction of the detached end, of the left ventricular band. Under treatment all the acute symptoms had disappeared, but the œdematosus swelling of the epiglottis and the arytenoid cartilages had only begun to get less after the syphilitic signs had cleared up.

Rhinitis Atrophica Foetida.

Dr. WILLIAM HILL showed a pathological specimen of rhinitis atrophica foetida in association with—

1. *Absence* (? congenital) of—

- (a) Septum (mostly absent).
- (b) Middle turbinals.
- (c) Inferior turbinals.

2. *Cleft of hard palate* (complete).

There appeared to have been at a former period a cleft of soft palate and hare-lip, since united by operation. The openings into the accessory cavities were normal, with the exception that there was a large accessory opening into the antrum of Highmore on each side. The sphenoidal sinuses were small.

Mr. STEWART suggested that the absence of the turbinals was due to the atrophic rhinitis, and not the rhinitis to the absence of the bones. A congenital malformation might have been present in addition to the rhinitis.

Mr. BABER thought that the condition was probably the result of syphilis.

Dr. HILL, in reply, urged that the symmetrical absence of the parts, the cleft in the palate, and the want of evidence of bone disease, pointed to a congenital rather than a pathological origin.

Right Hemiplegia; Paralysis of Right Half of Soft Palate and Abductor-Paresis of Right Vocal Cord, the last-named certainly not of Cortical Origin.

Dr. FELIX SEMON showed this case. K. H., aged nineteen, dressmaker. (The patient was shown by kind permission of Dr. Hughlings

Jackson, F.R.S., under whose care she is at present as an in-patient in the National Hospital for Epilepsy and Paralysis.)

History.—Previously always well. Family history good. In December, 1890, a box of matches got alight in the patient's hand one night, frightening her very much, although she was not burnt; but the fumes, she says, went down her throat. Next morning on waking she was unable to speak or to move her right arm and leg. Fluids also regurgitated through the nose. She remained like this three to four days: then first the speech returned, a little latter she could swallow well, in about fourteen days the leg began to get better, and she could walk in four to five weeks; about a month after the attack the arm began to improve, and since then she has gradually recovered.

Present condition.—No facial or ocular paralysis. Tongue not wasted, put out in median line. The soft palate on phonation is decidedly drawn up towards the left. Its right half acts less to faradism than the left. Tactile sensibility and reflex irritability. Voice very slightly nasal, but all consonants correctly pronounced.

Larynx.—Right vocal cord does not stand quite in median line, but very near it, and on attempted phonation makes a slight but very distinct inward movement, so that during the act of phonation, the left cord coming up perfectly normal, the glottis is entirely closed in the median line. On inspiration the right cord returns to its previous position very near the median line, whilst the left is well abducted. In deep inspiration the right cord does not go any further outwards, whilst the left goes completely to the side of the larynx. The right Santorinian cartilage stands considerably more inwards than the left, so that, even apart from position of the right vocal cord, the laryngeal image is somewhat asymmetrical. The laryngeal conditions appear to be stationary.

Arms.—The right arm feels colder to the touch than the left. Right deltoid appears smaller than the left, and the right arm moves less perfectly than the left. She cannot put the right hand to the back of her head, and, as she raises the arm, there is more rotary movement of the right scapula than on the left. Flexion and extension of the right elbow are less powerful than on left. Flexion and extension on right wrist very imperfect. Right fingers in a state of flexion, allowing of passive extension, but can only be moved voluntarily to a small extent. No defect of sensation.

Legs.—Movements are perfectly carried out, but with less power on right than on left. Plantar reflexes present, more on left than on right.

Slight systolic murmur over base.

Lungs normal. Catamenia normal.

Remarks.—The interest in this case, of course, centres in the question whether the paralysis of the soft palate and larynx are of cortical origin or not. With regard to the palate I wish to leave this question somewhat open, although I do not know of any clinical case proving the occurrence of cortical paralysis of the palate, because Mr. Horsley tells me that he and Beevor have obtained unilateral movements of the opposite half of the soft palate on cortical excitation. The

laryngeal paralysis, however, I feel convinced is *not* of cortical origin, and this for the following reasons :

The only experimenter who states that he has obtained *isolated* movements of the *opposite* vocal cord on gentle stimulation of the phonatory area in the cortex (*i.e.*, just posterior to the lower end of the praecentral sulcus at the base of the third frontal gyrus in the monkey, and in the praecrucial and neighbouring gyrus in the carnivora) is Masini. Previously Krause had found that unilateral irritation always produced *bilateral* effect, and Horsley and myself in very numerous experiments, performed both before and after Masini's publications, have also always obtained a *bilateral* effect, and have never been able to corroborate Masini's statement (*vide* paper "On the Relations of the Larynx to the Motor Nervous System," *Deutsche Medicin. Wochenschrift*, No. 31, 1890).

On one point, however, *all* experimenters are agreed, *viz.*, that the laryngeal movements obtained on stimulation of any part of the cortex, *always*—except in the cat—*are* of the nature of *adduction* of the vocal cords, *never* of *abduction*. This result is entirely in accord with our general physiological notions on the two widely different functions of the larynx, its *purposive* function, phonation, only being specially represented in the *cortex* by the movement of *adduction*, whilst its more *automatic* function, respiration, has its centre in the *medulla*, and is manifested by the movement of inspiration, *i.e.*, *abduction* of the vocal cords.

Even supposing, therefore, that Masini's contention were correct, and that an isolated cross effect could be exercised from one cortical phonatory centre, this effect could only concern the movement of *adduction*. Or, pathologically expressed, supposing that such an isolated cross effect existed and that the area from which it proceeded was destroyed in man by disease or injury, this could only manifest itself by the *opposite* vocal cord *remaining behind* in *voluntary adduction*, *i.e.*, in phonation, just as we see it *bilaterally* in functional aphonia. The *respiratory* position of the vocal cords, however, would in such a hypothetical case of course be the same as under normal circumstances, and the *inspiratory* movement, *i.e.*, *abduction* of the affected cord, would be affected without the least hindrance to its fullest extent, as this movement is entirely governed by *bulbar* influences.

In the present case, however, the actual conditions are quite the reverse from what one would expect them to be, if Masini's statements were correct : the right vocal cord is *fixed* near the median line during respiration, its *purposive cortical* movement, *i.e.*, *adduction* during phonation, is still effected, whilst the actual impairment concerns the *automatic* and eminently *bulbar* movement, *i.e.*, *abduction* during inspiration.

From these facts the conclusion appears justified that the *laryngeal* paralysis *cannot* be of cortical origin, and that it *must* be due to a lesion further down. The diminished reaction of the right half of the palate to faradic excitation certainly points in the same direction.

Attention may finally be directed towards the very remarkable case of hemiplegia, in many respects closely resembling the one now presented, and in which there was also *abductor-paralysis* of one vocal

cord with paralysis of the corresponding half of the soft palate, which was brought forward as an example of *cortical* laryngeal paralysis before the Laryngological Section of the Eighth International Medical Congress of Copenhagen in 1884 by Dr. Bryson Delavan, of New York, and in which the *post-mortem* examination made four years later in the most thorough and painstaking manner, conclusively proved that the assumedly *cortical* paralysis of the vocal cord in reality was due to a focus of softening in the *medulla*, completely destroying the motor vagus-nucleus (*New York Medical Journal*, 22nd June, 1889).

Isolated Tertiary Syphilis of Naso-Pharyngeal Cavity, simulating Paralysis of Left Half of Soft Palate.

Exhibited by Dr. FELIX SEMON. J. W., aged thirty, accountant. Two months ago the patient suffered from what was declared to be tonsillitis. On recovering from this the voice assumed a very nasal *timbre*, which still persisted when the patient was first seen on April 26th. There had, however, never been any regurgitation of fluids through the nose, no paralysis of any other part, and there was no evidence that the acute attack had been of diphtheritic character.

On examination it was seen that the soft palate, which otherwise, as well as the rest of the mouth, throat, and larynx, seemed quite normal, was on phonation distinctly drawn up towards the right. No ocular paralysis.

On posterior rhinoscopy almost the whole upper part of the naso-pharyngeal cavity was seen to be ulcerated, a deep ulcer with steep edges especially occupying the posterior surface of the right half of the soft palate.

On inquiry it was elicited that the patient had had a chancre ten years ago, but, according to his statements, there had never been any secondary symptoms.

It is difficult to say why the palate should be drawn up on phonation towards the *right*, the ulceration prominently occupying that side of its posterior surface, and no explanation of this fact is ventured upon.

The ulceration is rapidly healing under the use of iodide of potassium and mercury, but is still distinctly visible on the posterior surface of the right half of the palate.

Pachydermia of the Larynx.

Two cases exhibited by Dr. FELIX SEMON. J. C., aged forty-two, solicitor, and G. G., aged fifty-two, clergyman.

The two cases were typical, and only shown on account of the comparative rarity of the affection. In the case of Mr. J. C. the left, in the case of the Rev. G. G. the region of the right vocal process, was the part affected, and in both cases the characteristic indentations on the top of the tumefaction were very well marked. Special attention was directed towards the free mobility of the affected cords. In both cases the voice was but very slightly hoarse and there was but little local discomfort. The case of Mr. J. C. is of about three months' standing, that of the Rev. G. G. of nearly a year's; the unusual persistence of the latter case is probably to be attributed to chronic alcoholism of very pro-

nounced type. (It may be also mentioned that this patient, who, for fourteen years or more, has had two symmetrical lymphomatous tumours in the nape of his neck, has recently developed several more of these at the side and in front of the neck. They are, however, diminishing under the use of arsenic in large doses.)

The treatment in both cases has consisted in as complete rest of the voice as possible, iodide of potassium internally, frequent sucking of ice. In both cases so far the affection has remained almost limited to the vocal cord first attacked. Only in the case of the clergyman a very small indentation, corresponding to the summit of the swelling opposite, is now becoming visible on the posterior end of the left vocal cord.

Dr. Hall, who had seen one of these patients some six months previously, concurred in the diagnosis, and commented upon the slight change that had taken place in the interval.

In reply to various questions, Dr. Semon stated that the disease did not show any preference for one or the other side. It generally appeared on the processus vocalis, and usually in voice users. It was certainly maintained by any condition, such as chronic alcoholism, which tended to keep up irritation. As a rule, the disease got well under the steady use of iodide of potassium. Attempts at removal were usually unsuccessful, and perichondritis was apt to follow. The crateriform depression on the tumour and the perfectly free movement of the cords were very strong diagnostic points.

Tabes Dorsalis ; Bilateral Paralysis of Glottis-openers with Paralysis of Internal Tensors of more than twelve years' standing.

Exhibited by Dr. FELIX SEMON. W. G., aged sixty-two, fishmonger. The patient, whose initial tabic symptoms dated back, according to his own statements, to nearly twenty-five years ago, had suffered from fully-developed bilateral paralysis of the posterior crico-arytenoid muscles to a certainty as far back as 1881, when he was in Guy's Hospital under Dr. Goodhart, by whose permission he was shown to the Laryngological Section of the International Congress in London ("Trans. Internat. Med. Congress, 1881," vol. iii., p. 332). Since then the general tabic symptoms, which are of the ordinary kind, have made, though steady, yet exceedingly slow progress, and it need only be mentioned that in the right knee Charcot's joint-disease has developed, and that in the larynx bilateral paralysis of the internal thyro-arytenoid muscles, manifested by elliptic gaping during inspiration of the glottis, which otherwise remains closed in front and posteriorly, has been superadded to the bilateral paralysis of the posterior crico-arytenoid muscles.

Remarks.—The case is again shown :

1. On account of its uncommonly slow course and the persistence for certainly more than twelve years of the paralysis of the glottis-openers.
2. Because the paralysis of the internal tensors developed since 1881 corroborates the statement made by me in 1883, and since illustrated by Berger—viz., that these muscles are the next in order of occurrence to succumb to progressive organic disease, after the abductors.
3. Because this very paralysis of the internal tensors whilst the cords

remain in the mid-line incontrovertibly shows that the whole process is one of primary paralysis, and not one of primary neuropathic contracture.

4. Because this patient (as well as the one shown at the last meeting) is able, although his posterior crico-arytenoid muscles undoubtedly must have undergone almost complete fatty degeneration and atrophy, to produce without the least effort both high and low notes, which strongly militates against the supposed existence of a synergy of the antagonistic laryngeal muscles in the performance of their functions.

Chronic Induration in Pharynx.

Dr. SCANES SPICER showed a patient, aged fifty, a married woman, who had complained of difficulty of swallowing, especially of solids, which always required washing down with liquids ; no pain, but a bad taste in mouth.

Had an injury over right temple ten years ago, leading to an external swelling. This disappeared, and a swelling appeared inside mouth in region of right ascending ramus, which was lanced with escape of blood only, and now shows scars and thickening. No specific history. Catamenia stopped seven years ago.

There was an old perforation of the posterior wall of the pharynx on right side, through which was seen a yellow slough, with much induration of right posterior pillar and adjacent parts.

Papillomata of Nostril and Gum.

Dr. SCANES SPICER showed microscopic specimens of the growths from the patient shown at the last meeting. One had been removed in 1888 and the other in 1893, and both appeared to be typical papillomata.

Mr. CHARTERS SYMONDS thought that the microscopic characters pointed to the lupoid nature of the case. There was abundant small-celled granulation tissue, arranged in nodules. The papillæ were irregular, and some of them very large.

Lupus of Nose.

Mr. W. R. H. STEWART showed a patient, R. B., aged fifty-eight. Fell on nose fourteen years ago and broke it. Some little while after the nose began to get blocked on the left side and sore outside. When seen last year left nostril was completely blocked by a papillomatous growth from the septum, and there was some superficial ulceration of the left side of the nose and upper lip. The growth was destroyed by the galvano-cautery, and antisiphilitic treatment was tried. The patient did not much improve. Unna's plaster was then applied to the outside of the nose, and gave the characteristic reaction. The patient refused further operative treatment.

Mr. W. R. H. STEWART also showed the following case :

E. F., aged ten, came to the Great Northern Hospital two years ago, complaining of a stoppage of the nose and swelling outside which she had had for three years. The skin over the right side of the nose was smooth and thickened, the inside of the nose was quite normal, but the naso-pharynx was packed with adenoids. There was some keratitis and one tooth was decidedly pegged. The parents are both healthy, have

nine children ; this one, who is a twin, comes about seventh or eighth. The adenoids were scraped and there was a great improvement, but the thickening of the nose never got much less. Some time after, the nose again becoming stopped, the right nostril was found blocked with what looked like lupoid tissue. It was well scraped and lactic acid applied, and the breathing greatly improved, but the thickened condition of the skin remained, and some brownish patches and slight superficial ulceration appeared. This, however, has not yielded any reaction to Unna's plaster. The left nostril has now become blocked.

Mr. CRESSWELL BABER said that he had found resorcin of some value in the form of ointment in cases of external lupus of the nose.

Dr. HALL asked if the direct application of cold had been tried in such cases, as advised by some Continental observers.

Dr. BEALE related a case of lupus of the cheek, in which he had used small ice-bags for several hours at a time over a period of about three weeks, with much discomfort to the patient and no result whatever upon the disease.

Mr. STEWART proposed to try resorcin. He mentioned the case of sarcoma shown at the last meeting, in which he had been using large doses of arsenic, as recommended by some of the members present. Hitherto it had done no good.

Probable Malignant Disease of Epiglottis and Right Side of Larynx.

Mr. BUTLIN exhibited a patient, aged sixty-two, a pastrycook, who had been attacked with almost sudden dysphagia six months ago. Enlarged gland discovered shortly afterwards. A little blood in expectoration occasionally (blood-tinged sputa only). Temperature normal. Urine, no albumen. Lungs natural. No history of syphilis. One brother said to have died of consumption. Has been taking potass. iod. five to ten grains for nearly a month. Grows worse instead of better.

Traumatic Perichondritis of Larynx.

The patient, a male, aged sixty-two, exhibited by Mr. CHARTERS SYMONDS, stated that four months ago he felt sudden pain in left side of the larynx while eating fish, since which time he had had a painful spot on the left side and an irritable cough. When seen some ten days after there was a good deal of swelling of the left arytenoid, which looked shiny and smooth. Later it extended along the fold and the cord became fixed. At the present time there is a rounded smooth swelling of the arytenoid and ary-epiglottic fold, with fixation of the side. There is no rough surface, no ulceration, no purulent secretion, no external swelling. Antisyphilitic remedies have not done good. There is a suspicion of phthisis at the left apex. The case appears either a traumatic perichondritis or a new growth.

Epithelioma of Epiglottis.

Mr. CHARTERS SYMONDS showed a male patient, aged sixty, who gave a history of ten months. The epiglottis was very much enlarged and thickened, and deeply ulcerated in its posterior surface. There were numerous glands in the neck also. A case was referred to in which the

entire epiglottis was removed through the neck, with complete relief to all the symptoms. In the present case the patient swallowed fairly well.

Dr. SEMON thought that the case was one probably of traumatic perichondritis, but observed that very little reliance could be placed on histories of sudden affections of the larynx, as they were often shown to be misleading.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON LARYNGOLOGY AND RHINOLOGY.

December 28, 1892. ("Med. Rec.," Jan. 7, 1893.)

Dr. E. J. NICHOLS. *Disappearance of Epithelioma of the Tongue without Operation.*

In this case there was some suspicion of syphilitic disease.

Dr. NEWCOMB understood that iodide of potassium had been used in the case, and believed that its beneficial action in malignant disease was effected by its influence on the circulation, whereby it might cause disappearance of the inflammatory zone surrounding the malignant process.

Dr. NICHOLS said the affection of the tongue in his case disappeared before iodide of potassium was administered.

Dr. H. B. DOUGLAS. *Some Points on Malignant Disease of the Nose.*

General symptoms were spoken of as those which would be caused by the presence of any foreign growth in the nose, such as hyper-secretion and headache of some form. Other symptoms somewhat more indicative of malignant disease were infiltration, haemorrhage, ulceration, and pain. He had found no authentic ground for believing that the pain of carcinoma differed from that of sarcoma. An early symptom of malignant disease was infiltration. Haemorrhage was significant of both carcinoma and sarcoma. Ulceration was usually more rapid in carcinoma than in sarcoma, and was accompanied by an offensive discharge, sometimes thin and bloody, sometimes purulent. The characteristic symptoms of malignant disease related to the appearance, to deformity, age of the patient, deposits, and locality. Carcinoma, unlike sarcoma, had no characteristic colour of the disease area, while it did cause in time a general cachexia. Sarcoma generally produced deformity by displacement of the normal structures and crowding forward, while carcinoma produced a destructive change by ulceration rather than by crowding and displacement. Sarcoma was more apt to develop on a previously existing tumour as a fibrous or mucous polyp or cartilaginous growth, and usually originated well forward, while carcinoma was apt to start posteriorly, on the basilar process of the occipital bone, etc. A microscopic examination should be made to confirm the diagnosis, but more reliance was to be put upon the clinical history and gross appearances. Malignant disease, especially carcinoma, very rarely occurred primarily in the nose. The author related some cases collected from medical literature.

Dr. ROBERT ABBE was asked to open the discussion, and said he could not recall having seen a case in which cancer had originated within the nose. When present in this part of the face it was almost always by extension from the antrum or some surrounding parts. Sarcoma was more common, but this affection also was apt to be retro-pharyngeal. Especial care was required in operating when it involved the basilar process of the occipital bone. Some years ago, at a clinic in Boston, several patients were presented in illustration of the curious fact that fibro-sarcomas, usually involving the basilar process, developing rather late in boyhood, and proving intractable to surgical treatment, were apt to disappear spontaneously about the twentieth year. Perhaps certain remedies had apparently succeeded in some cases because of this natural retrograde process. The fact also carried with it the lesson not to be in too great haste to operate.

Dr. VANDERPOEL had seen but one case of primary sarcoma of the nose. It sprang from the middle turbinated on the right side, and had a large base. Dr. Vanderveer operated, but the final result could not be stated, as the patient remained under observation only two months. As usual in malignant disease of the nose, there was no involvement of the lymphatics of the neck. He laid stress on the necessity for radical removal, as was done in cancer of the breast and elsewhere.

Dr. PARK referred to one case of malignant disease involving the nose—he did not say primarily—in which Dr. McBurney made the diagnosis of probable sarcoma, whereas the microscopic examination showed it to be carcinoma; and he knew of another instance in which the diagnosis of carcinoma was made, and it proved to be a sarcoma.

The Chairman, Dr. KNIGHT, believed at present that the growths should either be let alone or removed completely.

Dr. HERMAN KNAPP had never seen primary carcinoma of the nose, but secondary involvement of the nose from cancer of the orbit or lachrymal region was not very infrequent. Its ravages then became often extreme, yet it might not kill for ten, twenty, or more years. In one case he performed a pretty extensive operation, making two artificial lids, and closing the defect in the nose by skin and periosteum. There was no recurrence until nineteen years. Sarcoma might spring from the nose and go into the orbit, or spring from the orbit and go into the nose. In either case it was malignant to the utmost degree. He operated on one patient who had been operated upon fifteen times before. He lived eleven months longer, and then died of exhaustion. In another case he operated as thoroughly as he could, but the patient died within a week of purulent meningitis, and at the autopsy such extensive sarcomatous infiltration was found as would have positively debarred all hope of radical removal had its extent been previously known.

Referring to Dr. Abbe's remarks, he said there were cases pronounced by the pathologist to be sarcoma which were not; nor could the benignant nature of the growths be known except by their subsequent spontaneous disappearance. One patient was operated upon for sarcoma originating in the posterior nares by a surgeon in Springfield, Massachusetts. There was rapid recurrence, and she saw Dr. Knapp, who advised against

another operation in view of the rapid recurrence after the previous one, but advised her to keep the parts clean, live a regular life, etc. She came back in about six months to show him what electricity had done for her. The tumour had entirely disappeared, and she gave the credit to the electric current which some doctor had applied. In another case there was extensive involvement of the orbit, and a surgeon took out the eye. The diagnosis was confirmed by microscopic examination. The other eye became involved with a similar hard tumour, which displaced the ball considerably. Dr. Knapp did not feel justified in advising the removal of this eye also in order to accomplish radical treatment. Without special treatment the tumour entirely disappeared in the course of nine months, and there had been no recurrence after about six years. In another case there were tumours in both orbits, but also tumours of the skin, which led to the diagnosis of Hodgkins' disease. All the tumours disappeared. He believed the tumours that disappeared spontaneously were lymphomas, but at present the differential diagnosis between them and sarcomas often could not be made except by the final result.

Dr. WRIGHT (Brooklyn) knew of no way to make the differential diagnosis positive between small round-cell sarcoma and granulation tissue and adenoid growth in the throat. It was different with spindle-cell sarcoma, as nothing else looked like this under the microscope. Many tumours supposed to be malignant disappear under the use of iodide of potassium, and this agent should always be tried before operating. He said he had sections of two cases of primary carcinoma of the nose, and thought he had seen five or six cases of primary sarcoma of the nose within as many years. The more radical any operation, the better were the patient's chances of cure.

Dr. W. C. PHILLIPS said he had never seen primary carcinoma of the nose, and wished to know of Dr. Wright where the growth had started in his cases. He had seen a case of what he believed to be sarcoma of the antrum, but the patient refused an operation until too weak. An autopsy was not permitted.

Dr. WRIGHT replied that it was difficult to say just whence the growths had started, whether from the basilar process or elsewhere.

Dr. DOUGLAS expressed the hope, in closing, that Dr. Wright would report his cases in detail.

Dr. Charles H. Knight was re-elected Chairman, and Dr. Wendell C. Phillips, Secretary.

SECTION ON SURGERY.

Meeting, December 12, 1892. ("Med. Rec.," Jan. 14, 1893.)

MEVER, WILLY. *Epithelioma of the Ear treated by Excision and Skin-grafting.*

The epithelioma involved the upper and fore part of the ear and the neighbouring part of the scalp in a man aged thirty-two. It started as a pimple four years before, and under the application of acids had ulcerated. Dr. Meyer excised the parts a distance of two inches in diameter, taking away the helix, part of the tragus, &c., and then applied Thiersch's skin

graft. At present there was little difference in appearance between the two sides.

January 9, 1893. "Med. Rec.", Jan. 21, 1893.

PHELPS.—*Removal of a Button from the Oesophagus, two inches below the upper border of the Sternum.*

The incision was made along the anterior border of the sternum, and the oesophagus was opened just above the innominate vein, but the button could not be removed till the oesophagus was *drawn up* so far that it was possible to cut directly down on the foreign body. Dr. Phelps thinks it would have been better to make the external incision in the middle line, and draw the trachea to one side. Rectal feeding being found insufficient, a stomach tube was employed, but the child unfortunately died on the sixth day. [Mr. Eve has drawn attention to the facility with which the oesophagus can be drawn up.—ABS.]

MEYER, WILLY.—*Incision of Retro-Pharyngeal Abscess, according to antiseptic principles, from the Neck.*

Dr. Meyer recommended the exclusive practice of this method of opening all retro-pharyngeal abscesses, but especially those arising from tuberculous spondylitis, the incision to be along the anterior or the posterior border of the sterno-mastoid, according to the circumstances of the particular case. Other speakers supported his contention, Dr. LILIENTHAL incising the integument along the trapezius, using only blunt instruments after cutting through the skin and fascia.

Dr. VAN ARSDALE thought that the ordinary acute retro-pharyngeal abscesses of childhood should still be opened by the mouth.

Dundas Grant.

SOCIETY OF LARYNGOLOGY, OTOTOLOGY AND RHINOLOGY OF PARIS.

February 3, 1893.

Dr. GELLÉ.—*An Observation showing the relation of Traumatism to Malformations of the Nasal Septum.*

Referring to the researches of Chatellier and Potiquet upon this subject, the author confines himself to the clinical aspect of the question, dealing with a case in which he has for a long time followed the evolution of the pathological process, which, originating in a traumatism, has terminated in a permanent malformation of the nasal septum. After a severe traumatism, involving a lesion of the quadrilateral cartilage, a spur resulted. The blow was received directly upon the nose, fracturing the cartilage, and tearing both covering membranes. It occurred in a little girl of five, whose septum was, before the accident, quite straight. An abscess formed at the site of fracture, pus being evidently formed under the perichondrium and nasal mucous membrane, perforating the cartilage and appearing on both sides. The swellings were incised, washed and dressed with iodoform gauze each morning. The severe

symptoms were caused by an attack of "grippe," which occurred fifteen days after the accident. Fifteen days after its subsidence the nares presented the appearance on the right side of a radiated depression, and on the left side of a grey-white consistent and painless projection. The former became clearer and deeper, and the latter developed into a spur in contact with the inferior turbinate, solid and immovable, larger in front than behind.

Latent Empyema of the Frontal Sinus Diagnosed and Treated by the Natural Passage. By Dr. LICHTWITZ (Bordeaux).

The classical form of empyema of the frontal sinus with its symptoms (distension of the orbital wall of the sinus, especially at the level of the superior internal angle of the orbit, with or without fistula, frontal headache, fetid nasal secretion, generally of a unilateral and intermittent character) is well known to surgeons, and many cases have been reported. It is quite different with the latent form, which, though suspected by certain authors, has up till the present time been almost ignored, and is characterized by the absence of any external sign, such as swelling, redness, fistula, or any other pathognomonic symptom. Of symptoms, the only constant one is the occurrence of nasal hyper-secretion, fetid or not; unilateral or bilateral is common to empyemata of the other sinuses. Another symptom is frontal headache, which disappears as soon as the pus flows out, but this is not constant. The presence of pus at the level of the antero-superior portion of the hiatus semilunaris is also neither an infallible nor a constant sign.

Percussion has been had recourse to by Zenker ("Allgem. Zeitschrift für Psychiatrie," XXVII., p. 43, 1870); auscultation by Czernicki ("Rec. de Mém. de Méd. Milit.," 3^e Série, XXIII., p. 521, Dec., 1869); trans-illumination by Vohsen ("Berlin. Klin. Woch.," No. 46, 17 Nov., 1890); but Lichtwitz attributes no value to them in view of the great variety in the natural formation of the sinuses. He holds that the only absolute diagnostic test is the detection of pus, and he divides the methods into three groups :—

- I. External opening (trephining).
- II. Perforation of the floor of the sinus.
- III. Catheterism of the sinus.

I.—The external opening is to be selected in the "classical" cases, in which the diagnosis is certain. It has been practised by Ogston ("Med. Chron.," Dec., 1884), in those "latent" cases as a method of diagnosis and treatment. Grünwald ("Münch. Med. Woch.," No. 40, 6 Oct., 1891), and Hartmann ("Langenbech's Archiv," Band XLV., Heft 1), each operated externally on a case, after establishing the diagnosis of empyema of the sinus by catheterization through the intra-nasal passage. Lichtwitz considers this prudent measure as by no means superfluous, so as to avoid opening the frontal sinuses and finding no pus (Mayo Collier, JOURNAL OF LARYNGOLOGY, No. 1, Jan., 1893).

II.—Perforation of the floor of the sinus was recommended in 1890 by Schaeffer ("Deutsche Med. Woch.," No. 41, 1890). After having cocainized the mucous membrane, he introduced a solid but flexible stylet,

two millimètres in thickness, between the septum and the middle turbinal, directing it upwards towards the forehead. A crackling sound is soon heard, produced by the fracture of the thin osseous plates. Sometimes a greater resistance is felt, and the stylet is driven on till it is felt to enter a cavity. Schaeffer appears to have used the method as early as 1885 ("Chirurgische Erfahrungen in der Rhinologie und Laryngologie," Wiesbaden, 1885). The descriptions of the cases are vague, but he reports twenty-five, out of which eighteen were cured and seven improved. Lichtwitz has tried the process on the cadaver and on the living subject. He made use of a straight steel trocar $1\frac{1}{4}$ millimetres in diameter, and introduced it by following the angle formed by the septum and the lateral wall of the nose. In only three out of twelve of the dead specimens was the proceeding practicable, the bone being too thick in the others. In one of these the trocar slipped back and pierced the cribriform plate. On the living person he employed this method in eleven cases, but in all except three too much force was required to justify perseverance. He has abandoned this mode of operating in favour of catheterization.

III.—Catheterization of the frontal sinus. Jurasz was the first to attempt this on twenty-one persons. In five it was quite easy, in six it was difficult, and in ten impossible. He employed a fine bulbous metallic probe 11 to 15 millimetres in length. Later (1891) he mentions twenty-three cases of frontal empyema treated by removal of polypoid thickenings of the middle turbinal. In three he attributes the cure to the use of the stylet. Schulter ("Monats. für Ohrenheilk.", No. 10, 1888) used a canula instead of a probe, and injected liquids, and especially air, into the cavity with good results. Hartmann and Grünwald have each employed the instrument for diagnosis, but have resorted to trephining for purposes of treatment.

As regards the practicability of the proceeding, Zuckerkandl ("Realencyclop. der ges. Heilkunde," Band XIV., 1888, p. 49) throws doubt, but Hansberg ("Monats. für Ohrenheilk.", Nos. 1, 2, 1890) considers it undoubted in one-half of all cases, and greatly facilitated by the removal of the middle turbinal. Katzenstein considers it only possible in those cases in which the fronto-nasal canal is replaced by a large orifice. Cholewa ("Monats. für Ohrenheilk.", Nos. 8, 9, 1892) holds that catheterization is practicable in 60 per cent. of all cases, and Hartmann in about 50 per cent. Alexais ("Bull. de la Soc. de Biologie," 1891, pp. 702-705) notes among the chief difficulties the existence on the anterior border of the lateral mass of the ethmoid a little depression capable of momentarily arresting the probe, but, still more, a vertical groove parallel to and behind the frontal one, somewhat wider than it, and opening into the anterior ethmoidal cells, and, further, a little blind passage opening sometimes in front of and sometimes inside the frontal canal.

Lichtwitz himself practised it on thirteen specimens. In three there was such a distension of the anterior ethmoidal cells on one or both sides as would have made catheterization impracticable during life. Of the others three communicated with the infundibulum by a simple ring, and in the remainder by a canal of from one to one-and-a-half centimètres in length. In the nine successful cases the obstructions met with were :

(1) Extreme prominence of the unciform process ; (2) the middle turbinal ; (3) the bulla ethmoidalis. He found that these were best avoided by introducing the instrument from behind and below, instead of in front and below. He noted, further, that the fronto-nasal canal formed almost a right angle, with a line drawn from the floor of the orifice of the nose to the superior extremity of the infundibulum. Accordingly he employed a canula bent at a right angle at one centimetre from its extremity, with which he thinks the obstacles are most easily avoided.

He draws great distinction between the frontal canal of a healthy sinus and that of a diseased one. In the former the entrance of the catheter into the sinus is uncertain, as the feelings of the patient are not always a sufficient criterion. In the latter the canal is usually found after removal of obstructing granulations to be more than normally wide, and to allow the tube to enter the nose for as much as seven centimetres, while the evacuation of pus and the relief of pain afford evidence of entrance into the sinus. In the diseased cases he found the sensibility of the parts much diminished, so that sometimes even cocaine was unnecessary.

In seven cases he was able to diagnose and treat the disease through the natural channel. The empyema was unilateral in four, bilateral in three. In one of the unilateral cases there was also an abscess in the maxillary antrum. In all the bilateral ones there were other sinuses affected, notably the sphenoidal ones.

As regards etiology, in three cases it was traumatic. All had, or had had, polypi of the nasal fossæ. The diagnosis was only effected by means of exploratory irrigation, as the symptoms alone were insufficient. There was a more or less abundant secretion, which emptied itself into the posterior nasal fossæ. In six cases there was frontal or general headache, and in one, who had at the same time empyema of the sphenoidal sinus, the chief trouble was the dropping of large masses of muco-pus into the throat, probably due to the sphenoidal disease.

The treatment is irrigation through the canula with carbolized water from one to three times a week. This was followed by injections of glycerine or vaseline with iodoform, or of ichthyolized glycerine. Astringents were not well borne.

There has not been time to judge of ultimate results, but in all there has been immediate relief of pain, and more or less diminution of discharge.

Meeting, April 7, 1893.

Dr. JOUSLAIN.—*Case of Fracture of the Left Great Cornu of the Hyoid Bone.*

Fractures of the hyoid bone are very rare, owing to its mobility. No case has been recorded of direct cause of fracture. Fracture may occur in the body of the bone or its cornua ; the latter occur frequently in old persons after attempts at strangulation, the former often in criminals hanged. Women are less subject than men to fracture of the hyoid. At the moment of fracture the noise produced is often heard by the patient

and those around. Pain is severe, and limited to the spot. Crepitation and displacement can be felt by the finger in the hyoid region of the throat ; deglutition and speech are painful, and accompanied by dyspnoea, and the subcutaneous wound may be accompanied with inflammatory swelling. If the fragments have pierced the mucous membrane there may be haemorrhage or emphysema. Prognosis must vary according to the complications.

The case is related by the author of M. I. B., aged forty-six, the commencement of the trouble dating from August, 1888, and first seen by the author in August, 1889. Up to then, the history given by the patient and by the country physician led to no idea of what really existed, and suggested degeneration of the epiglottis, or of the base of the tongue, or, perhaps, of an ossified retro-pharyngeal abscess. The patient's story was that after a cold bath sore throat followed, with sharp pains, and a certain amount of difficulty of swallowing ; the sensation of a foreign body in the throat having persisted from the first.

When first seen in August, 1889, the laryngeal mirror revealed that to the left of the epiglottis, in the hyoid region, the mucous membrane was raised fully a centimetre and a half to two centimetres, by a small bone, narrow, and with obtuse termination (*mousse*), and fixed solidly in front. With the finger it could be pushed outwards, but returned to its previous position. The body of the hyoid bone, accessible to touch in a meagre subject, participated in the movements.

Then, on questioning, the history was obtained of a sharp pain in the left side of the neck, the patient himself hearing a crack. This occurred after muscular effort while bathing. All efforts at speaking and eating were immediately painful, and the neck sensitive and swollen.

The diagnosis seemed beyond doubt. If immediately after the injury the bone had been replaced, immobilizing the body, it might have reunited. If the author could have treated the patient now (he almost directly returned to the country) he would have re-fractured the great cornu, and maintained it by massage and redressing in position.

Foreign Body in the Meatus Auditorius. By Dr. BONNIER.

A man, aged about thirty, had been affected with deafness and tinnitus in the left ear for a few days, and with complete deafness in the right ear ever since the age of seven. In both instances the condition had arisen suddenly and without discharge or pain. The left ear was restored to its normal state on the removal of a plug of cerumen by means of a delicate forceps. The right was occupied by a similar plug, but beyond it the forceps came in contact with a hard foreign body which it was unable to grasp, the vertigo and auditory ear-cough set up by the manipulation obliging the operator to desist. Lotions were ordered for the purpose of softening and removing the cerumen, and after a week the patient brought to the surgeon a small piece of glass tube, 4 millimetres in thickness and $7\frac{1}{2}$ millimetres in length. The hearing, after being in abeyance for twenty-three years, returned at once.

Auditory Meatal Reflexes. By Dr. BONNIER.

In a tubercular patient in whom the two points on the posterior wall

of the meatus were carious, it was possible to make out three distinct reflexes.

1. On touching the membrana tympani a reflex irritation was produced, as is normal, at and above the level of the glottis and a short cough—"tympanic cough"—was set up.

2. Irritation of the denuded *spot external and posterior to the tympanum* determined a cough of a bronchial character.

These two reflexes belong to the vagus.

3. Further from the tympanum, close to the exterior of the osseous meatus, the reflex aroused consisted sometimes in a hiccough, sometimes in genuine eructation. There was no internal pain provoking a contraction of the diaphragm, and the patient was surprised at the absence of this sensation. The writer accounts for the reflex by the community of origin of the great auricular and the first root of the phrenic, both emerging by the third inter-vertebral foramen.

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**RESULTS OF THE SURGICAL TREATMENT OF
LARYNGEAL PHTHISIS, based on 252 Cases.**

By Dr. THEODOR HERVING (Warsaw).

THE question as to the necessity of the surgical treatment of laryngeal phthisis is approaching its final decision. It is evident from the transactions of the Laryngological Section of the Tenth International Medical Congress in Berlin, in 1890, that the majority of specialists advocated this method, while the very few who condemned it were unable to base their opposition upon personal experience. The doubts expressed by Professor Schrötter regarding the value of the anatomical and microscopic specimens of healed laryngeal phthisis, demonstrated by me with the view of proving that tubercular infiltrations could be completely absorbed, have been quite set at rest by Virchow's verdict, and the subsequent microscopic researches of E. Fraenkel, as may be seen from the paper published by me in 1891.¹

A comparatively large number of communications on the surgical method have been published since then, partly in the form of monographs, and partly as descriptions in the most recent text-books of laryngology. In France during the last three years the most eminent specialists have expressed their opinion on the subject, and the new method has gained good friends and warm supporters. The German colleagues also, who advocated it in 1890, still do so without exception—nay, more, as I infer from letters received from these gentlemen, they maintain to-day the same exceedingly favourable attitude towards the method as they did three years ago. In England and America the new mode of treatment

¹ "Berliner Klin. Woch., No. 47.

has only slowly gained adherents, as is everywhere the case at first among those colleagues who possess the energy and skill not to be dispirited by the absence of brilliant results in the first attempts.

Be that as it may, I consider the present a fitting occasion to lay before my English fellow-workers the results of my experiences in this matter, which extend over almost eight years, in order that those who intend to take part in the discussion on this subject at the Eleventh International Medical Congress in Rome may be acquainted with the researches on which I base my opinion. I have been honoured by the request of the Committee of the Laryngological Section of the Congress to report—with Gougenheim, of Paris, and Lennox Browne, of London—on the limits of local treatment in laryngeal phthisis. I shall specially describe the surgical treatment.

I must first of all thank Dr. Wolfenden (whom I have the pleasure of numbering among the supporters of the method) for opening his Journal to my communication. Assuming that the principles of the surgical treatment are known to most of my colleagues from the works which I have published in German and French, my object will be to discuss in detail the paper which I read in Berlin on this subject in 1890, and which has been published, to amplify this by my experiences gathered between 1890 and 1893, and in conclusion to deal with the important question of technique and instruments.

The first part only of this work appears in the current number of the JOURNAL OF LARYNGOLOGY; the second will appear in September, and the last part will be published towards the end of the year.

To Dr. Brown Kelly, of Glasgow, who has personally observed the method in Warsaw, and has kindly translated this paper into English, I here desire to express my hearty thanks.

It was a hazardous task to suggest and desire to carry out a surgical treatment for an affection which, even ten years ago, was regarded as absolutely incurable, and the vigorous treatment of which had been denounced by eminent authorities as a mistaken practice.

After the foundation of this pernicious doctrine had been gradually removed by the labours of Moritz Schmidt in Frankfort, and its error thoroughly exposed by conscientious observers, the further development of an energetic therapeutics appeared rational and possible.

To-day, we can say with genuine pleasure that the harmful theory of the incurability of laryngeal phthisis is exploded, and that it is now a thing of the past. To use Krause's words, it required energetic efforts, severe contests, and the co-operation of many, to prepare the way for curettement.

Unfortunately, however, the results of surgical treatment do not permit us to entertain extravagant hopes, for, in spite of lactic acid and curettetment, the majority of patients suffering from laryngeal phthisis remain uncured, and recurrence always threatens the lives of those who are comparatively cured. Since we have to deal with an affection involving both the larynx and the lungs, which has been defined as absolutely incurable, and which in most instances runs a fatal course; since the disease gives rise to the most painful symptoms, and the

patients are frequently liable to starvation, and, indeed, sometimes die from this cause ; it is our duty to struggle, as far as possible, against the disease, and, although we well know how few patients remain cured for a long period, to do our utmost (1) to relieve suffering; (2) to prolong life, and (3) in favourable, but very exceptional cases, to bring about perfect healing in the larynx, and a restoration of its functions.

Inspired by this duty, we must try everything—summon every means to our aid, and endeavour with the greatest energy to fulfil our calling in the true sense of the word. We must leave nothing undone to help the suffering patient, and let nothing depress us or lead us from the right path. In spite of the opposite opinion entertained by some, this goal is really attainable, and I shall endeavour to present here the proofs in support of this, which have determined me to advocate a surgical procedure.

Seven years have passed since the publication of my first work on the surgical treatment of laryngeal tuberculosis. Although even this period is perhaps too short to allow one to speak definitely as to its value, especially when it is a question of how long the cures have lasted, still, it suffices to determine whether the method introduced by me is rationally and technically practicable, and whether, as compared with the methods previously in vogue, it can show actual successes in the way of clinical observations and carefully recorded *post-mortem* conditions.

I now wish to deal with the question as to the possibility of obtaining a complete healing of the ulcers in tubercular laryngeal affections ; also whether the tubercular infiltration—and herein lies the special interest of the problem—can be absorbed, *i.e.*, can undergo a perfect, radical cure. We do not here discuss how often this occurs, or how long the cure continues, or whether there are relapses, and how often they take place—either in the neighbouring parts or at the same locality—but whether this can be proved anatomically and histologically at all, since, by adducing these proofs, the justification of this treatment is established.

In order to prove the correctness of my deductions, I shall, in the first place, give the history (Observation No. 36 in my work already referred to) of a female patient, who was cured of very destructive laryngeal phthisis by surgical treatment, seven years ago. On the left side of the larynx there was great destruction of the epiglottis, and large scars in the region of the glosso-epiglottic ligament and ventricular band. This case only proves the possibility of a prolonged cure of deep ulcerations and infiltrations of the epiglottis, ventricular bands, ary-epiglottic ligaments, and posterior wall of the larynx. It makes no claim to a radical cure. The woman lives amid very unfavourable surroundings, and, in spite of these, she recovered. A slight recurrence three winters ago on the posterior wall of the larynx was removed by curettage, and cicatrized perfectly. This patient was examined during her illness by a large number of my colleagues in Warsaw, whose names are inscribed on the clinical report. She was shown at a meeting of the Warsaw Medical Society in 1890, after the cicatrization had been present for three years. The woman is still alive. I examined her in May last, and found her larynx perfectly healed. She swallows without pain. Her

voice is loud and clear. The condition of the lungs has, however, become worse.

Frau Goldschall, Warsaw, aged forty-eight, was treated in February, 1886, for laryngeal phthisis. The patient had had haemoptysis twice, once in 1884, again in 1886. She was fairly well nourished, and without fever. At the first examination a tubercular infiltration of the epiglottis and a very decided swelling of both arytenoids was found. In the lungs, under the right clavicle and the left scapula, the breathing was bronchial, and there was dulness on percussion.

The patient was treated with lactic acid, and a decided improvement was obtained. In spite of this, in November, 1886, ulcerations appeared on the lateral surface of the left arytenoid, and on the left ary-epiglottic ligament. Thickening, with tubercular infiltration of the left ventricular band took place, and at the same time a crater-like, indolent ulceration appeared in the region of the left glosso-epiglottic ligament, which reached to the ventricle of Morgagni. On November 9th the ulcerations above described were scraped with a sharp spoon, and shortly afterwards (in December) were twice cauterized with chromic acid. Even with this, no satisfactory improvement was obtained. At the beginning of February, 1887, use was made of chloride of zinc, fused on the end of a silver probe. A thick white eschar formed, which fell off at the end of a week, and the ulceration commenced to heal quickly. Painting with lactic acid was still employed from time to time.

On May 7th, 1887, the condition of the larynx was as follows : On the left half of the epiglottis, close to the left lateral ary-epiglottic ligament, there was an irregular elevation as large as a pea, covered with somewhat round vegetations. I found, in addition, a diffuse hypertrophy of the left false vocal cord, which partly covered the true cord, and a slight infiltration of the cartilage of Santorini. The condition of the lungs, and the strength, had improved. The patient had no fever ; she swallowed without pain, and the voice was pretty clear. On June 20th I made three injections of iodoform, each of three drops, into the ary-epiglottic ligament and the left false vocal cord, without marked reaction. These were repeated on July 1st. In the course of five weeks the ulceration of the left false vocal cord had diminished. On phonation the edge of the left true vocal cord was visible, the granulations were undergoing atrophy, some of them having been converted into red cicatricial tissue, which, on probing, felt hard ; in short, the process of cicatrization was becoming gradually more marked. The patient could swallow without pain, she had no cough, and her appearance was rapidly improving. Strength and voice were normal ; she had gained in weight, and was proud of her healthy complexion. With the laryngoscope no abnormality could be detected on the right side of the epiglottis ; on the left side, however, in the region of the glosso-epiglottic ligament, a deficiency and distinct scar were observable. The latter ran along the left half of the larynx from the epiglottis to the false vocal cord as a pale-yellow fold several millimetres thick. The false vocal cord situated beneath this, and which had been curetted several times, looked like a coarsely-granular, pale-red swelling, and at the present day it retains

this appearance unchanged after the lapse of seven years. The right half of the larynx was normal ; there were no infiltrations of the posterior wall ; the cartilages of Santorini were likewise unaltered.

I shall now seek to contribute an anatomical proof of the complete healing of laryngeal phthisis. This I obtained by a fortunate accident. It is the case of a woman, whose clinical history appears in my book, published in 1887, as Observation No. 23.

Frau Z., Warsaw, aged thirty-eight, married, was first examined by me in April, 1886, on account of persistent hoarseness, and difficulty in swallowing. The patient was much emaciated, anaemic, of slender build, and had occasionally expectorated blood and coughed during the past four years.

There was no hereditary taint. She complained of feverishness, shivering, and profuse perspiration ; she was very weak, and had no appetite. I found tubercular infiltrations in the apices of both lungs, most marked on the left side. The sputa, examined by Dr. Mayzel, contained but few bacilli. There was diffuse infiltration in the larynx, and the whole epiglottis was markedly thickened, and so much inclined downwards that it somewhat covered the deeper parts. In addition, I found extensive ulceration of the right ventricular band and posterior wall of the larynx, and swelling of the right ary-epiglottic ligament.

During the examination the patient had severe attacks of choking ; she was very irritable, and coughed a great deal. In order to allay the pain on deglutition, I required to paint the larynx with cocaine, and while so engaged, an extraordinary event occurred—the brush was still in the larynx, when the patient, who was nervous, threw herself suddenly back, and, in doing so, the end of the instrument tore through the infiltrated epiglottis. The pain was slight, the bleeding *nil*. On the following day, however, I found the wound of the epiglottis unclosed, and there remained a triangular cleft of about five millimetres between the two portions. After some weeks the pain subsided, and the ulcers on the posterior wall cicatrized ; those on the right ventricular band, however, were covered with proliferating granulations, and would not heal. They were removed with the sharp spoon. A firm scar formed, the right vocal cord became visible, and proved to be normal. The epiglottis became gradually thinner, and healed up, cicatrizing beautifully. The state of the lungs, together with the strength and appetite, improved very decidedly.

The patient became pregnant, and got safely over her confinement without recurrence in the larynx ; the affection in the lungs, however, advanced. In 1888 she aborted ; in spite of this she had no fever, and her aspect and strength were good.

She spoke and sang with a perfectly clear voice. In 1889, at a meeting of the Warsaw Medical Society, she was seen by many of my colleagues. Her condition was certified to be as follows : Of the epiglottis, which was divided into two by a thick cicatrical cord, only two thin, notched, connective tissue plates remained, the left being double the size of the right. All the other parts were normal, and nowhere were infiltrations or ulcers to be found. The right ventricular band was somewhat yellow and scarred, the posterior wall smooth, and there was no infiltration.

tion of the right cartilage of Santorini, as was formerly the case. The true vocal cords—pale, with sharp edges—approximated perfectly. Bronchial respiration was found at that time in the upper part of the right lung, both in front and behind. On the left side, in front and above, was rough breathing, without crepitant. The sputa contained no elastic fibres, but a few bacilli.

In the winter of 1889-90 the lung affection began to advance. Fever set in, then chronic diarrhoea, and on June 12th, 1890, the patient died. I succeeded in obtaining the larynx. It has been examined by Prof. Virchow, and the perfect cicatrization verified.

I had given this interesting preparation to Prof. Virchow for the Pathological Institute, but in consequence of Prof. Schrötter's sceptical remarks, I was compelled to ask him to sacrifice it for microscopic examination. Just at that time, Dr. E. Fraenkel, of Hamburg, requested me to send him preparations of healed laryngeal phthisis, for purposes of microscopic examination and of demonstration, which he had in view in connection with his investigations on the etiology of laryngeal tuberculosis, then being published ("Virchow's Archives," 1890, Vol. 121, No. 3).

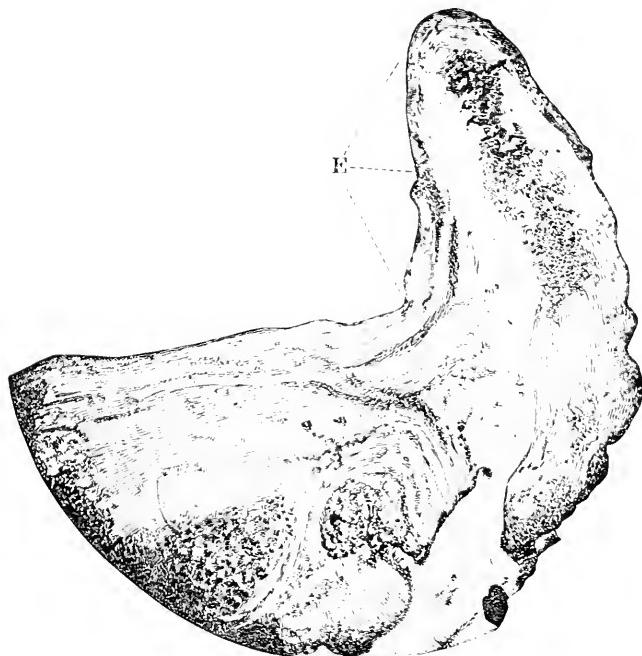
I communicated his request to Prof. Virchow, to whom I left the choice of either allowing Dr. E. Fraenkel to undertake the examination, or of having this carried out in the Pathological Institute.

The preparation was sent by Prof. Virchow to Dr. E. Fraenkel.

Dr. E. Fraenkel's *verbatim* report now follows, and I add two drawings which have been prepared from a photograph taken by Dr. Neuhauss in Berlin :

"The right half of the posterior laryngeal wall, and the epiglottis, were examined. The result was altogether negative. Nowhere was a trace to be found of any change which might have been interpreted as at all resembling tubercle. Even the demonstration of the epithelium was in most places possible, and, where this was wanting, the various manipulations undergone by the preparation were to be blamed rather than any pathological process. In the sections of the epiglottis an epithelium was present, made up of several layers of flat cells, and in the mucosa proper many thoroughly intact acinous glands, but neither in their neighbourhood nor elsewhere were there cell collections—in all directions, rather, a wavy, sometimes loosely arranged, sometimes more compactly formed, connective tissue, which passed without interruption into the somewhat thickened perichondrium. Cartilage was seen with cells quite intact. As a result of the operation, was observed—corresponding to the depressions microscopically visible—a wedge-like penetration of cicatricial connective tissue whereby the union of the divided cartilage had been effected. Also in the sections taken from the posterior wall the conditions presented were perfectly normal. It may merely be said that the healing is absolute."

The preparation which I have just described proves to me that even the most severe cases of laryngeal phthisis, presenting a high degree of infiltration of the epiglottis, and, as in this case, accompanied by tubercular infiltration of the ventricular band and cartilage of Santorini, and by deep ulcers of the posterior laryngeal wall, can, nevertheless, be



E. E. EPIGLOTTIS.

cured. Further, that they can remain so for some years without recurrence, as is evident from the cicatrices, in spite of advancing pulmonary phthisis. In addition to the speech, the singing voice has been recovered. Only the scars on the epiglottis indicate how destructive the process would have been, and what ravages it would have occasioned had its advance not been energetically opposed by the treatment. This patient would have died from dysphagia and inanition if the infiltrations and ulcers had not been speedily cured. To the surgical treatment she owes four years' extension of her life, the alleviation of her sufferings, and the recovery of her voice and ability to swallow.

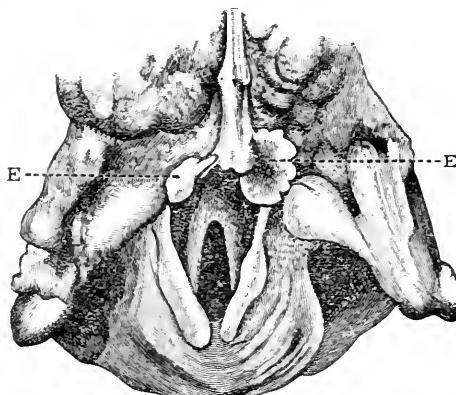
I have already admitted, and repeat again, that these cases are of the greatest rarity. As they may occur, however, and thus prove the possibility of a cure, they ought to serve us as a rule of procedure, and, in certain cases, incite us to adopt energetic treatment. The indications for this can now be pretty exactly stated; they are limited, and will possibly, at a later date, be extended, but they are never to induce us to undertake a surgical treatment of laryngeal phthisis, excepting under special conditions, or to lead us perhaps to believe that all cases are adapted to it, and that it can be carried out by everyone. But I shall return to this later.

After having afforded anatomical proof, I must now endeavour by microscopic and bacteriological preparations to refute the assertion that, in spite of energetic curettage, tubercle and colonies of bacilli are always to be found in the deeper parts, *i.e.*, beneath the cicatrices.

A preparation, such as appears to me to give proof of a possibility of radically curing circumscribed tubercular infiltrations of the posterior wall, was obtained from a patient who was shown in the Laryngological Society by Dr. Oltuszewski on June 14th, 1889, and was subsequently admitted into my ward, where he died of pneumonia following influenza.

The patient, aged twenty-eight, complained, on his first visit, of irritation in the throat, and of a cough. The history of a hereditary taint could be elicited. He had never had syphilis; he was of powerful build. In the apex of the left lung a very slight condensation was detected. On examining the posterior wall of the larynx I found a tumour-like, smooth, pale prominence, which I regarded as a tubercular infiltration. The other parts of the larynx were normal, excepting the vocal cords, which were slightly red, especially near the vocal processes.

Three months later the patient entered my ward on account of hoarse-



E. EPIGLOTTIS CICATRIZED.

ness and slight dysphagia. The swelling had increased, and the irritation in the throat was unbearable, and caused continual coughing. In the left lung the process had made progress ; no bacilli, however, could be found in the sputum. The general condition was comparatively good ; there was no fever. In order to test in this case of circumscribed infiltration once more the value (which I doubted) of the galvano-cautery, I attempted to destroy the infiltration by this means. The consequence was a decided aggravation of the dysphagia, and of the irritation causing the cough, without any positive success. The cauterized parts were red and swollen, as was also the adjacent mucous membrane of the arytenoids ; a thick, felted eschar occupied the region burned for fifteen days, and in spite of cocaine and menthol would not come away. I then had recourse to the curette, and removed large pieces of the infiltrated tissue, and obtained rapid healing. Even after two weeks the wound surfaces were smooth, and the swelling had subsided ; eight days later cicatrization was complete. Dysphagia, and the tendency to cough, had altogether disappeared, the voice was stronger, and the general condition decidedly better. The presence of tubercle, with giant cells and bacilli, was proved in the portions of tissue examined.

The patient was demonstrated on November 1st, 1889, in the Warsaw Medical Society. Two days later he was attacked with influenza, accompanied by high fever, complete prostration, and loss of appetite. On the fourth day a double croupous pneumonia set in, from which he died in nine days in the Hospital of St. Rochus.

The necropsy showed disseminated tubercular and peribronchitic foci in the apex of the right lung, in addition to a recent diffuse fibrinous pneumonia of the lower lobe. In the left apex were a few scattered tubercular deposits, the size of hazel-nuts ; close to this, red hepatization here and there, and in the lower parts grey hepatization.

I must here leave out of account all the very interesting details, and wish only to remark that in the larynx, on the posterior wall, which was formerly infiltrated, a smooth cicatrix was visible, and that the microscopic examination of these parts revealed neither tubercle nor infiltration, and nowhere colonies of bacilli.

A similarly negative result was yielded on microscopic examination of the other parts of the larynx, which, in spite of their normal condition, were investigated with regard to the presence of bacilli. No changes were evident in the epiglottis, ventricular bands, or vocal cords which could arouse the suspicion of a tubercular affection.

I must now consider the question of spontaneous healing in greater detail, seeing that it can very easily be used as an argument against the value of the surgical treatment. We must ask ourselves, Have we not to do with a spontaneous healing in these three cases? And then, In how far is a favourable influence on the course of the disease to be attributed to our treatment? As I described quite a number of cases of spontaneous healing seven years ago, some of them being under observation at the present day, I am thus armed against this objection, and can but reply that in one thousand nine hundred and eighty cases of laryngeal phthisis, whose clinical histories I have collected down to

July 1st, 1890, I have observed spontaneous healing in fourteen. With very few exceptions, this occurred in slight cases of ulceration of the vocal cords in persons whose general condition had suffered but slightly, the lung affection being of a fibrous character, and who, besides, living in comfortable circumstances, could do everything for the attainment of health—change of climate, &c. One of these patients is still alive (July, 1893). He was attacked in October, 1883, and has thus been cared for almost ten years. This patient had ulcers on the left vocal cord and on the posterior wall of the larynx. I have described his case as No. 10 in my paper on the curability of tubercular ulcers, published in Berlin in 1886. After a visit for his health to Meran, and subsequently to Egypt, he completely recovered, and continues so to the present day. It is evident that a comparison cannot well be made between this one case of spontaneous healing, which must be numbered among the slighter, and the successes of the surgical method (including the use of lactic acid), whereby removal of the dysphagia, recovery of the voice, and prolongation of life were obtained. These facts speak for themselves and require no comment. They do not prove the possibility of a radical cure of the combined laryngeal phthisis, for I give no guarantee of their permanence, and the patients will frequently suffer from relapses, but they demonstrate the advantages of this method, if carried out with thought, consistency, and energy, in selected cases. This statement has been warmly supported and verified by a number of colleagues from their own experience.

It would be greatly to be regretted for the progress of laryngeal therapeutics, so far as the surgical method is concerned, if, however, our deductions were misunderstood, or gave rise to the belief that we consider this mode of treatment as alone correct, and indicated in all cases, or, as Prof. Schnitzler said, as the only saving method.

Six years ago I defined its principles thus far (*op. cit.*, page 125) : "We must exert ourselves to limit the tubercular infiltration during the initial period, to prevent its extension and breaking down, and when the destruction is recent to localize it and clean the ulcerations. Inflammatory swellings and hyperæmias, both of the mucous membrane and perichondrium, must be diminished. In short, one must endeavour to convert a tubercular into a benign ulcer."

The treatment is analogous to the treatment of lupus, or tubercular joint disease, and has this in common with it, that in both instances the improvement in nutrition and strength is the chief requisite for recovery and cure. If this is not taken into consideration, then all treatment as a rule is fruitless, and the result transitory. I have also remarked (page 120) that one must not be alarmed by the inflammatory reaction, which sometimes lasts for several days after surgical procedure (especially when the patients do not take care of themselves afterwards); one must also give warning of the possibility of a brief exacerbation. "An energetic application of cocaine almost always shortens and soothes this very painful period. But it is to the interest of the doctor to employ the surgical method only in suitable cases, and to weigh well, not only whether it is indicated, but also whether it is practicable in the case in

question." At the top of page 121 I remark: "At all events, one must be exceedingly cautious with the prognosis, and must always remember that the healing of the laryngeal ulcers cannot yet be regarded as equivalent to a complete cure of the laryngeal and pulmonary consumption."

Adhering to these principles, I have tried, in addition to lactic acid, treatment with the galvano-cautery. This has given me less satisfaction, however, because the eschars remain too long, excite inflammation, increase the dysphagia, and aggravate the patient's distress for a time.

I am aware, nevertheless, that also by this means cicatrizations have been produced, even of fairly long duration—a proof that success is attainable with various agents in certain cases. Within the last two years I have succeeded in obtaining a definite healing by the galvano-caustic treatment in two cases. These will be described in detail.

I have also employed electrolysis with favourable result in the destruction of tubercular infiltrations in the larynx, in diffuse infiltrations of the epiglottis, and in chorditis tuberculosa. The particulars of the method, and description of the instruments, were published this year in the "Therap. Monats," Nos. 1 and 2, although I knew that some colleagues had already tested and praised this procedure. If I employ electrolysis less often than the surgical method, it is merely because I have found that surgical measures lead more quickly to the desired result, and I have no inclination to make use of means which are only comparatively good, when better ones, according to my experience, are at command.

My optimism—for which I am reproached by some—as to the curability of laryngeal phthisis, and the advantage in certain cases of a treatment necessarily surgical, is not only based on clinical observation, but is confirmed by microscopic and bacteriological investigations, which have been pursued for years. This feeling reaches its height in the experience—which is continually receiving additional confirmation, both in theory and practice—that a primary laryngeal phthisis exists, that this occurs more frequently than is commonly believed, that a general infection from the larynx, *i.e.*, secondary lung disease, cannot be prevented, and that tubercular deposits at first concealed in the larynx will develop unless removed by surgical interference, which can thus obviate a further infection and a certain destruction.

(*To be continued.*)

A CASE OF PACHYDERMIA LARYNGIS.*

By Dr. W. MILLIGAN (Manchester).

OF late years the condition known as "pachydermia laryngis" has occupied a prominent place in the writings of laryngologists, more especially in those of our German *confrères*. The first detailed account of this affection is from the pen of Hünermann, who, in 1881, described the disease as attacking the posterior extremities of the vocal cords. In

* Read at the 15th Meeting of the British Laryngological and Rhinological Association, June 30th, 1893.

the normal larynx the mucous membrane is, for the greater part, covered by a layer of stratified columnar epithelial cells, but over the epiglottis, the inter-arytenoid commissure, the true vocal cords and the superior surface of the ventricular bands the lining membrane is composed of stratified pavement cells. The histological changes found in cases of pachydermia consist in marked thickening of the epidermal covering, in multiplication of the papillæ, in enlargement of and increase in the number of the blood-vessels, and of increase in their lumen.

Pachydermia may attack the mucous membrane of the inter-arytenoid commissure alone (when it must be carefully distinguished from the thickening due to tubercular deposit), or that covering the posterior extremities of the vocal cords, or it may exist as a more or less diffuse affection affecting the greater part of the interior of the larynx.

McBride,¹ in an admirable article upon this subject, proposes the term "idiopathic pachydermia" so as to differentiate this primary affection from the pachydermic condition so frequently found accompanying tubercular, syphilitic, or malignant affections of the larynx.

In 1887 Virchow² published an elaborate description of this affection, in which he describes the occurrence of symmetrical oval swellings situated in the region of the vocal processes, the centre of each swelling being slightly excavated, which depression he says is due to the more intimate adherence of the mucous membrane to the underlying cartilage.

Fraenkel,³ while accepting the general description of the affection, takes a different view regarding the causation of the depression (or depressions), and thinks that it is due to the pressure exerted by the tumour of the one side upon the corresponding tumour of the other.

Krieg⁴ shares Fraenkel's view, and points out that if the depression were due to such an anatomical cause as stated by Virchow it should exist upon both sides, whereas as a matter of fact it is usually unilateral. In his series of cases the depression was situated five times upon the right side, three times upon the left, and once upon both sides; the accurate fitting of the prominent portion of the swelling of the one side into the depression of the opposite side during phonation accounts for that complete closure of the glottis which has so frequently been observed.

Sommerbrodt,⁵ Meyer,⁶ Rethi, and Michelson⁷ regard the affection as prone to attack the male rather than the female sex, and as a rule those who smoke and drink. The age at which the affection has usually been observed is from thirty-five to forty years. In seventeen cases recorded by Krieg the affection occurred sixteen times among males, of whom thirteen were given to the abuse of alcohol.

Chiari⁸ while admitting that chronic catarrh, alcoholism, syphilis, or tuberculosis may be exciting factors in the production of pachydermia,

¹ "Edinburgh Med. Journ.," April, 1893.

² "Berliner Klin. Woch.," 1887, p. 585.

³ "Deutsche Med. Woch.," 1890, p. 30.

⁴ "Med. Correspondenzbl. von Württembergischen Ärztlchen Landerverein." Nov. 21, 1890.

⁵ "Berliner Klin. Woch.," 1890, p. 429.

⁶ "Deutsche Med. Woch.," 1893, p. 922.

⁷ "Berliner Klin. Woch.," 1890, p. 232.

⁸ "Rev. de Laryngol., d'Otolog.," Jan. 1, 1891.

regards the inter-arytenoid region as the part most frequently attacked, while the vocal cords themselves are much less prone to be affected.

The disease, as a rule, runs a simple and uncomplicated course, and is rarely attended by the development of any deep-seated lesion. According to Hünermann, however, ulceration, chondritis, or perichondritis may at times result. So far it is impossible to state definitely whether the affection be purely benign or not. Most laryngologists regard pachydermia as an innocent condition. Klebs,⁹ however, takes the view that it is the forerunner of cancer, a view which has been severely criticized by Kuttner.¹⁰

The laryngoscopic appearances are definite and admit of no special difficulty in diagnosis. The presence of two small oval or ovoid swellings situated upon the posterior extremities of the true vocal cords, one or both depressed towards its centre, of a whitish-red or rose colour, and whose substance gradually merges into that of the true cord without any well-defined border, present a picture typical and characteristic of the affection.

A general chronic laryngitis frequently co-exists, and in one of McBride's¹¹ cases there was laryngitis sicca. In seven out of eleven cases recorded by Meyer,¹² deficient abduction movements were observed. These deficient movements of the cords may possibly be due either to the general catarrhal thickening of the mucous membrane, to extension of inflammation to the underlying muscular structures, or to some affection of the crico-arytenoid joint.

The symptoms of idiopathic pachydermia are few. There is, as a rule, considerable hoarseness, but this may not exist if the coaptation of the cords during phonation is perfect. There is at times also slight pain during deglutition. Dyspnea may be present, especially upon exertion, and at times a sensation of weariness (one can hardly name it pain) is referred to the region of the larynx.

Sandmann¹³ records a case in which ulceration, accompanied by severe shooting pains in the ear, occurred, but it is open to question whether this was really a case of true idiopathic pachydermia.

Regarding the prognosis of the affection, the weight of clinical experience is in favour of the condition being a purely benign one, and hence, although the symptoms are troublesome and difficult to treat, no special danger to life is to be anticipated.

The treatment of the affection consists mainly in the exhibition of small doses of iodide of potassium, and in the local application, either by means of spray or syringe, of two to three per cent. solutions of chloride of sodium or acetic acid.

Scheinmann¹⁴ recommends the inhalation of steam during prolonged periods, while Schmidt suggests operative interference. Tissier¹⁵ also

⁹ "Deutsche Med. Woch.," 1890, p. 537.

¹⁰ "Separatabdruck aus Virchow's Arch.," Tome 121, 1890. "Berliner Klin. Woch.," No. 36, 1890.

¹¹ "Edinburgh Med. Chirurg. Journ.," April, 1893.

¹² "Deutsche Med. Woch.," No. 42, 1890.

¹³ "Berliner Klin. Woch.," 1890, p. 235.

¹⁴ "Berliner Klin. Woch.," 1891, p. 107.

¹⁵ "Annal. des Maladies de l'Oreille," July, 1891.

recommends the removal of the hypertrophied epithelial masses by specially constructed forceps, while Michelson reports satisfactory results from the employment of Leiter's cold coil placed over the larynx.

The course of the affection is essentially chronic, and so far the results of treatment are somewhat disappointing.

In the following case there are several special points of interest :—

E. C., female, aged twenty-one, a weaver, has complained of her throat for the last two years. She thinks that the trouble originated in a very severe cold. Her principal symptom is, and has been, a certain degree of hoarseness. This, however, varies a good deal. In the morning, when she rises, there is very distinct loss of voice, but as the day advances the voice becomes clearer until towards evening, when hoarseness is again well marked. She has never suffered from any special pain. There is a frequent desire to clear the throat, and at times she brings up small masses of inspissated mucous secretion. She has no cough, and says that during her illness she has lost no weight. On exertion, there is at times slight dyspnoea.

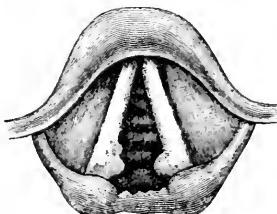
Family History.—She is the tenth of a family of twelve children. Of this family the fifth and sixth children were stillborn, and between the births of these two children the mother had two miscarriages. The other children are all alive and healthy, as also are the father and mother. The patient states that the only illnesses she has suffered from are scarlet fever (as a mere child) and an attack of influenza a year ago.

Examination shows that, with the exception of the laryngeal disease, she is in perfect health.

On laryngoscopic examination, the mucous membrane is found to be chronically congested. Both cords are somewhat thickened, and towards their posterior extremities, in the immediate neighbourhood of the vocal processes, two symmetrical swellings are observed. These swellings are of an ovoid shape, about the size of small peas, of a pinkish colour, and with their long diameters running antero-posteriorly. The swelling upon the left side is depressed towards its centre.

During phonation this depression is partially filled by a corresponding elevation upon the opposite cord. The apposition of the cords during phonation is not, however, perfect. There is, however, no impaired movement, and the want of complete apposition is probably due to the general chronic laryngeal congestion. The inter-arytenoid mucous membrane is thickened and corrugated.

The treatment adopted has been the administration of small doses of iodide of potassium, the application once a week of a solution of nitrate of silver (gr. 10 to 5*i.*), and the employment twice daily of an intra-laryngeal spray of a two per cent. solution of chloride of sodium. I cannot, however, say that the result of this treatment, now continued for over two months, has been satisfactory. So far, at any rate, as the laryngeal appearances go, there is no obvious alteration in the size of the swellings. The patient



and the patient's friends state distinctly that the voice is not so husky as before. This, however, I am inclined to put down to the partial subsidence of the accompanying laryngeal catarrh.

DRY WEATHER AND THROAT DISEASES.

By LENNOX BROWNE, F.R.C.S.E.,

Senior Surgeon to the Central London Throat, Nose, and Ear Hospital. .

MR. WYNTER BLYTH, the Medical Officer of Health for St. Marylebone, has recently published in his quarterly communication a report commenting on the increase of diseases of the throat consequent on the dry weather.

He suggests that it may be due to two causes. Firstly, that in consequence of the superficial layers of the soil becoming dry, pathogenic organisms, which would under other circumstances adhere to the earth, are sucked up into the houses in the form of minute dust by currents of the ground air, which ever forms a portion of the atmosphere of ordinary houses ; and secondly, that large quantities of sewage, which in time of heavy rainfall would be swept out of London, remain in the miles and miles of large old-fashioned sewers, and there ferment and decompose.

The editor of a medical contemporary, approving these views, quotes in their support the researches of the botanist Nägeli, who suggests that it is to the different states of moisture of the earth that some part of the distinct periodicity of zymotic diseases is due, although he entirely misinterprets their purport ; for they do not help the theory that under dry conditions of the soil all kinds of pathogenic organisms are carried by upward movements of the ground air, but they do give great effect to an opposite contention, which I have long held and insisted on, namely, that it is not during the dry weather that throat disease is most prevalent, but on the first occurrence of moisture after long absence of rain.

Presuming that tonsillitis may be taken as representing the most common type of throat disease due to insanitary influences, the following statistics of our hospital show that the susceptibility is not so great during the dry weather as on the first break of rain after the drought :—

Total number of new patients in April, May, and June (78 working days)	2104
Number of cases of tonsillitis	78
Total number of new patients from July 1st to 15th (13 working days)	325
Number of cases of tonsillitis	27

On analysis, these figures show that for the three months previous to July the number of cases of tonsillitis was as nearly as possible equal to one a day, and was spread over this period in that proportion ; whereas in the fifteen days which followed, this average was more than doubled.

Thus the epidemic wave seems to be greatest when the first rainfalls, after a lengthened period of dry weather, being but slight, are sufficient to stimulate to activity the dry and comparatively inert organic matter, and it only passes away with the thorough flushing of the sewers, such as we obtained after the heavier and longer-continued showers of the latter half of July.

I may further add that one of my colleagues, residing in a poor portion of the same district as that superintended by Mr. Wynter Blyth, was visited on one evening in the second week in July by six patients in succession, all of whom were suffering from tonsillitis.

I would not have it understood from the foregoing remarks that I hold that dust and dry particles of organic matter do not play any part in the production of throat diseases. On the contrary, I have carefully considered this question in my systematic work (fourth edition, page 174). I only wish to enforce the point that, with regard to weather, long-continued drought and heat only become seriously noxious factors on occurrence of a change.

DIPHTHERIA, &c.

Gottstein (Berlin).—*Contagiousness of Diphtheria.* “Berliner Klin. Woch.” 1893, No. 25.

SEE the report of the meeting of the Hufelandische Gesellschaft of 12th January, 1893.
Michael.

Editor.—*Diphtheria without Membrane.* “Med. News,” May 20, 1893.

THIS is an editorial to bring before our notice the varying severity of diphtheria, and to advise us to carefully treat cases of simple angina occurring at the time of an outbreak of ordinary membranous diphtheria.

B. J. Baron.

Sendziak (Warsaw).—*Croup or Diphtheritis of the Nose.* “Monats. für Ohrenheilk.” Mar., 1893.

BACTERIOLOGICAL details of a case observed by the author. It must be read in the original, because it is only of pathologico-anatomical interest.
Michael.

Escherich (Graz).—*On the Question of Pseudo-Diphtheria Bacilli and the Diagnostic Value of Loeffler’s Bacillus.* “Berliner Klin. Woch.” 1893, Nos. 22 and 23.

IN all cases of true diphtheria Loeffler’s bacilli are found. The pseudo-diphtheria bacilli must be regarded as a special genus. They are of no diagnostic value. In the mouths of healthy persons virulent bacilli are sometimes found. Such persons must be looked upon as immune from

local conditions, such as special thickness of the epithelium, or by acquired immunity from a previous attack of diphtheria. *Michael.*

Leonhardi.—*Croup, Diphtheria, and Scarlet Fever.* “Volkmann’s Vorträge,” New Series, 1892, No. 55.

NOTHING new.

Michael.

Ahrnson.—*Experimental Researches on Diphtheria, and the Immunity-Producing Power of Blood Serum.* Berliner Medicinische Gesellschaft, Meeting, May 31, 1893.

THE necessary dose of serum to produce immunity was 1 : 400,000 if the infection was one day old, and 1 : 30,000 if the infection was two days old. For a sick child some decigrams will be enough to produce immunity and cure. *Michael.*

Behring (Berlin).—*Treatment of Diphtheria with “Diphtherieheilserum.”* “Deutsche Med. Woch.” 1893, No. 23.

SO-CALLED septic cases of diphtheria are not produced by Loeffler’s bacilli, but by a complication of other micro-organisms, such as streptococci. The serum has no influence on this form; it must be treated by chlorate of potassium or iodoform. By cleansing the diseased organs this complication will not occur. Of the chemical nature of the “Diphtherieheilserum” nothing certain can be said; it is not an albumen or globulin, because it is also effectual in a peptonized state. In large doses also it has no toxic effects. *Michael.*

Tull.—*Report of a remarkable Series of Thirty-three Cases of Diphtheria, treated by the Tartaric Acid Corrosive Sublimate of Mercury method.* “The Times and Register,” May 20, 1893.

RENNERT’S method of swabbing the throat with a one to five hundred tartaric acid corrosive sublimate solution, made by dissolving a tablet in water, was carried out. A teaspoonful of the solution is used at a time, and the application is made every three hours; no roughness ought to be used, and the throat should be gently swabbed, not rubbed. In two or three days the membrane readily comes off, and as the case gets better the applications are made every six and then every twelve hours.

At the same time the bowels were acted on by a tablet containing calomel, sodae bicarbonate and ipecacuanha every half-hour till free evacuation occurred, and then every two hours; also a mixture containing quinine, chlorate of potash, citrate of potash, and perchloride of iron was administered. The success of the method is said to be remarkable.

B. J. Baron.

Wharton.—*A Case of Diphtheritic Croup, in which a tracheotomy tube was worn for sixty days.* “Medical News,” June 24, 1863.

THE reason for the long period during which the tube was worn was that masses of granulation tissue formed lower in the trachea than the wound. Intubation did not help. Removal of these granulations and cauterization of their bases enabled the tube to be dispensed with. *B. J. Baron.*

Veronese (Trieste).—*Post-Diphtheritic Paralysis of the Heart.* “Wiener Klin. Woch.” 1893, Nos. 17 to 24.

A GIRL, thirteen years old, died suddenly ten days after an attack of diphtheria. The microscopical examination of the heart showed partially fatty degeneration of the musculature. In the nerves laryngeus superior, nervi cardiaci, phrenici, splanchnici, pathological degenerations were also found. The author has observed sudden death in ten cases of convalescence from grave diphtheria. In all cases careful examination revealed the existence of dilatation of the heart some days before the event. In all cases vomiting and disagreeable sensations in the cardiac region were also observed during the last days. Auscultation does not give sure results. The examination of the pulse is of great importance. A simple arythmia is of no great danger, because it is observed in many convalescents from infectious diseases, but sometimes it constitutes a true delirium cordis of bad prognosis. Also a bad sign is high frequency without feverish symptoms, and especially the pulsus varus of forty or less beats. The liver is always enlarged in cases of post-diphtheritic collapse, and the phosphates in the urine are increased. Some attacks of syncope usually precede the fatal collapse. Treatment consists in rest in bed, good diet, camphor strychnine, cataplasms, etc. *Michael.*

NOSE AND NASO-PHARYNX.

Baumgarten.—*Empyema of the Antrum of Highmore.* Gesellschaft der Aerzte in Budapest, Meeting, April 29, 1893.

A CASE was shown which had been treated by broad opening and tamponing with iodoform gauze. *Michael.*

Grossmann (Budapest).—*Disturbances of Vision caused by Diseases of the Nose and its Accessory Cavities.* “Allgem. Wiener Med. Zeitung,” 1893, Nos. 14, 15, 16, 17, 18, and 20.

THIS detailed and instructive paper cannot be abstracted minutely, as it deserves. Here we can only give a short review. Eye diseases from nasal affections may be produced by the propagation of pathological processes, such as conjunctivitis and keratitis, from coryza chronica, eczema and nasal polypi; by inflammation of the accessory cavities, and especially dacryo-cystitis; in empyema of the frontal sinus disturbances of vision are often observed; from caries of the ethmoidal sinus, from ectasis of its cells, exophthalmos, abscess of the orbital cavity and emphysema of the orbital cavity may be produced. Retro-bulbar neuritis and perineuritis optica may arise from empyema of the sphenoidal sinus. The author relates illustrative cases from literature and from his own practice, and concludes with a case of neuro-retinitis optica and anaesthesia corneæ caused by a malignant tumour of the sphenoidal sinus. *Michael.*

Scheier (Berlin). — *Gunshot Wounds of the Nose and its Accessory Cavities.* “*Berliner Klin. Woch.*,” 1893, No. 17.

1. Gunshot wound of the frontal sinus. Complete amaurosis of the right eye. Anæsthesia of the right side of the face. On opening the wound the projectile could not be found. Only a fracture of the ethmoid bone could be seen. During the next few days meningeal symptoms appeared. Cure followed, but anæsthesia and amaurosis remained.

2. Gunshot wound of the antrum of Highmore. The projectile entered through the upper lip. There was suppuration of the cavity. With a porcelain probe, which indicated a black mark as it was introduced into the antrum, it was proved that the projectile, or part of it, was there. After some weeks the patient was without any symptoms.

3. Gunshot wound of the hard palate. The projectile was coughed out. There was severe bleeding from the nose. Tamponing by iodoform gauze. Rhinoscopic examination showed that the nasal septum and the turbinates were fractured. Some time later the aperture of entrance was nearly closed.

Michael.

Suchannek (Zurich). — *Contribution to Microscopical Anatomy of the Human Nasal Cavities, especially of the Olfactory Region.* “*Zeitschrift für Ohrenheilk.*,” Band 24, Heft 12.

SOME detailed anatomical remarks upon the author's paper in the “*Archiv für Mikroskop. Anatomie*” (see the report in this Journal) with regard to new antagonistic publications on the same subject. *Michael.*

Suchannek (Zurich). — *Studies upon Acute Rhinitis.* “*Monats. für Ohrenheilk.*,” April, 1893.

HISTOLOGICAL details of two specimens of coryza examined. *Michael.*

Von Zderas. — *Contribution to the Form of the External Nose.* Wiener Medicinische Gesellschaft, Meeting, Mar. 17, 1893.

DETAILS of the form of the external nose and its different regions. More of anatomical than of rhinological interest. *Michael.*

Herzog. — *Cough of Nasal Origin, with Report of a Case.* “*Medical News,*” June 24, 1893.

THIS is a case of a very common condition, in which there was a band connecting the inferior turbinated with the septum, along with some hypertrophy and atrophy of the mucous membrane of the nostril. There was also the usual pharyngeal abnormality. Severing the band and appropriate nasal treatment relieved the cough. *B. J. Baron.*

Stepanow (Moscow). — *Etiology of Scleroma.* “*Monats. für Ohrenheilk.*,” Jan., 1893.

DETAILS of the researches of the author upon this subject published in the “*Monats. für Ohrenheilk.*,” January, 1891. See the report in this Journal. *Michael.*

Schubert. — *On Syphilis of the Nose.* Aerztlicher Localverein, Nürnberg, Meeting, Dec. 1, 1892.

GOOD review.

Michael.

Meyer, Ed. (Berlin).—*Electrolyti: Treatment of Deviations of the Nasal Septum.*
“Deutsche Med. Woch.” 1892, No. 22.

THE author recommends the method, and believes it better than the galvano-cautery, because after-treatment is not necessary and no reaction follows. It can be performed without pain by previous application of cocaine. Bipolar application is less disagreeable than monopolar, and of better effect. The duration of the treatment is longer than that of the galvano-cautery, because a second application can only be made when the eschar of the first has disappeared. *Michael.*

Moskowicz.—*Diseases of the Naso-Pharynx.* Gesellschaft der Aerzte in Budapest, Meeting, Jan. 21, 1893.

NOTHING new.

Michael.

McBride, P.—*A Clinical Lecture on Adenoid Vegetations of the Naso-Pharynx and their Significance.* “The Clinical Journal,” July 19, 1893.

THE author defines these growths as being overgrowths or hypertrophies of Luschka’s tonsil, a layer of lymphoid tissue situated between the orifices of the Eustachian tubes, and thus lining the vault of the pharynx. The disease is most frequently met with between the ages of three and thirteen, although numbers of more or less marked cases occur in adults. In children the disease usually first manifests itself by a tendency to catch cold, and at times these colds are associated with croupy cough and nocturnal dyspnoea. Of all the symptoms (the various symptoms are carefully detailed) accompanying the presence of naso-pharyngeal adenoids, the most important is deafness. On examination the tympanic membranes may be found simply indrawn, or they may be thickened as well. The presence of serous fluid in the cavity of the middle ear may be obvious, or suppurative middle-ear disease, with or without complications, may be present.

To demonstrate the presence of adenoids the author prefers digital exploration of the naso-pharynx, although in many cases satisfactory evidence may be obtained from the use of the post-rhinal mirror. In the removal of the growths the author prefers to use Gottstein’s curette. The forceps and the finger nail also afford help at times. With regard to the vexed question of the position of the patient, the author finds that the most satisfactory method of operating is to have the patient’s head dependent. *W. Milligan.*

Park.—*Report of an attempted bloodless Operation for Malignant Polypus springing from the Base of the Skull.* “Boston Med. and Surg. Journ.” June 22, 1893.

SENN’s method of isolating the trachea and passing a tourniquet around the rest of the neck was resorted to. The venous bleeding was excessive, but there was no arterial haemorrhage. The jaw was then resected, and the malignant mass that completely filled the pharynx was removed. There was no bleeding, but death from shock occurred the day after the operation. *E. J. Baron.*

MOUTH, PHARYNX, &c.

Hays.—*Cystic Degeneration of Enlarged Submaxillary Glands.* “Medical News,” June 24, 1893.

THIS is the case of an immense growth, measuring fifty inches in circumference, weighing forty-seven pounds, consisting of a multilocular cyst filled with a greenish-yellow fluid. Its possessor was a woman seventy-three years of age, and it had been growing for forty-three years. Apparently it was a cystic enlargement of a submaxillary gland. It was never removed during life.

B. J. Baron.

Berens.—*Anomalies of the Uvula.* “The Medical Bulletin,” May, 1893.

IN three thousand throats examined there were found eighty-four cases where the uvula presented some anomaly. They are thus classified:—

Completely separate.....	2
Worm-like shreds.....	8
Supernumerary	4
Deeply cleft	14
Attached to other parts	2
Absence	2
Fish-tail shaped.....	39
Pendulum	2
Hypertrophied	11

The “pendulum” form consisted of a shred of tissue, one and a half inches long, attached to the uvula, and lying on and behind the epiglottis. It had excited a great deal of cough, and caused much loss of flesh. The author considers that the uvula does not act as a “dropping stone” to keep the epiglottis and larynx moist, and by contact to keep the pharynx moist, as some authorities think, because in the two cases of congenital absence there was no dryness of these parts.

B. J. Baron.

Butts, H. Hoyle.—*A New Instrument for Controlling Tonsillar Hemorrhage.* “The Medical Record,” July 1, 1893.

THE instrument is six and three-quarter inches long, and consists of two parallel steel blades, locked together at the point where they join their handles. To the tips of the blades, which are four inches long, and are curved outward and backward in their last half inch, there are attached on the outside and at right angles ovoid pads, through which the compression is exerted. The pads are of metal, and are symmetrical; each one is an inch long, and half an inch wide at its base, from which it gradually tapers to the apex, where it measures one-eighth of an inch in width. The surface of the pad is directed outward and backward, is convex in shape, perfectly smooth, and has rounded edges. The handles of the instrument are bent downward, and are continuous with the shaft; they are connected at their extremities by a threaded screw rod, that

passes through and emerges from the right one ; at the outer side of the latter there is a milled wheel that travels on this rod, serving to hold the pressure at any given place. A spring of moderate strength has been inserted between the handles to create enough resistance to the pressure of the hand to ensure a firm grip upon the instrument when it is in use, and to close it when at rest. By the approximation of the handles, the pressure pads may be separated four inches, a limit which will be found to be more than ample for the purpose intended.

The instrument is used as follows : Having placed the patient in the best obtainable light, and his mouth being widely opened, the tongue should be depressed with a spatula held in the operator's right hand, and the tip of the instrument directed by the movements of the left hand, quickly introduced and carried back into the pharynx, so that the pressure pads will be at a point slightly beyond the bleeding surfaces ; the distal end should then be opened widely enough to cause firm pressure with the pads upon the area of wounded tissue. This is done by closing the spring handles with the grasp of the left hand. The tongue depressor may now be discarded, leaving the right hand free to work the wheel running on the thread of the connecting rod. The amount of pressure to be used is in this way easily regulated.

W. Milligan.

Cheatham.—*Leptothrrix Mycosis of the Tonsil, Pharynx, and Base of the Tongue.*
“The American Practitioner and News,” May 20, 1893.

THE author considers this to be a different disease from follicular tonsillitis, but that a person with the latter trouble is very apt to have the tonsil invaded by leptothrrix. In mycosis leptothracia of the tonsils they are usually too small to be got hold of with a guillotine ; there is no constitutional disturbance, no bad odour, but the patient complains of feeling foreign bodies, such as fish bones, hairs, etc. The deposits are white or yellow, very difficult to detach, are elevated above the surface of the tonsil, sometimes pedunculated and look like spurs, are often not located in the crypts, and may even be on the pillars of the fauces. The microscope shows numerous leptothrrix threads. It is a very difficult condition to cure. The teeth should be carefully attended to, in order to destroy any nidus. The deposits should be removed by forceps, curette, or galvano-cautery point. The digestive functions should be regulated, and calomel internally, with alkalies, salol, and naphthaline, may be very beneficial.

B. J. Baron.

Stern (München).—*Pharyngo-Mycosis Leptothraxia.* “Münchener Med. Woch.,” 1893, No. 20.

DESCRIPTION of two cases.

Michael.

Bewley, H. T.—*A Case of Pharyngeal Spasm.* “The Dublin Journal of Medical Science,” July, 1893.

THE patient in this case was a man who was stated to have previously enjoyed good health. There was a doubtful history, however, of former alcoholism. One morning, on awaking, he found himself unable to swallow. On admission to the hospital the author found him suffering

from a kind of hiccough, which came on at irregular intervals. Every attempt to swallow appeared to cause great distress, and he stated that solids were more easily got down than liquids. There was also occasional laryngeal spasm, inspiration being at times whooping and laboured. During the times he struggled to swallow food he tossed himself about in bed, and was in great distress, but the pulse was found to be good, and the face in no way livid. He complained of thirst, but not of hunger. The various organs were found on examination to be healthy. He was given one-sixth of a grain of morphia hypodermically, and the faradic current was applied to his neck. The muscles reacted well, but no improvement in the power of swallowing resulted. Nutrient enemata containing thirty grains of bromide of potassium were given every four hours. After having been in this state for six days, a stomach tube was passed into the stomach, and entered without the least difficulty. Death took place quite suddenly early one morning. *Post-mortem* examination showed the arachnoid slightly thickened in places over the cerebral hemispheres. The convolutions near the longitudinal fissure were in parts slightly atrophic, the sulci being unusually wide. The floor of the fourth ventricle seemed finely granular, and some of the nerve cells of the medulla were found full of brown pigment. The pharynx, larynx, and oesophagus were found normal. The mucous membrane of the trachea and bronchi was bright red in colour, and coated with some slimy mucus. The author states that the hiccough and occasional laryngeal spasm went on quite irrespective of the presence of food in the oesophagus, and the clinical features of the case looked extremely like what might be considered a violent chorea of the muscular apparatus of the pharynx, larynx, and diaphragm.

W. Milligan.

Karewsky (Berlin).—*Acute Idiopathic Retro-pharyngeal Abscess in Children.*
“Berliner Klinik,” Heft 57.

A REVIEW of the subject is concluded by the author with the remark that retro-pharyngeal abscess may be caused by very different diseases, and that therefore an idiopathic origin can only be thought of if, by an exact examination, all other causes can be excluded. *Michael.*

LARYNX, &c.

Weil (Stuttgart).—*Laryngoscopy and Inferior Tracheoscopy.* “Monats. für Ohrenheilk.,” 1892, No. 12.

THE author has applied, for the examination of the larynx and trachea, little glass mirrors introduced into the tracheal opening of a child tracheotomized for papillomata. He could see well tumours situated in the lower part of the larynx and the trachea, and recommends the method. *Michael.*

Kurz, Edgar (Florence).—*Lipothymia Laryngea.* “Deutsche Med. Woch.,” 1893, No. 20.

AN Italian patient, fifty-eight years old, suffering from laryngeal catarrh, during an attack of coughing suddenly lost consciousness, and respiration seemed to cease. After some moments the attack passed off, and the patient became better. The author refers to some similar cases in literature, and believes that such so-called laryngeal crises occur more often in individuals of the Roman race than of the German race. *Michael.*

Köbner (Berlin).—*Tuberculosis of the Skin of the Under-Jaw and Laryngeal Tuberculosis.* “Berliner Klin. Woch.,” 1893, No. 19.

THE title explains the case.

Michael.

Masini, Prof. G.—*New experimental Researches on the Motor-Cortical Centres of the Larynx.* “Boll. delle Malattie dell’Orecchio, della Gola e del Naso,” July, 1893.

THESE new experiments were performed, not with electric stimulation and removal of portions of the cerebral cortex, but with local application of cocaine (solid grains of this substance) and injections of a cocaine solution coloured with aniline. This was to answer Semon and Horsley’s experiments, which were in contradiction with the first experiments of the author. According to Masini, there was a crossed influence, and in unilateral impairment only there occurred a glottic paresis. The present conclusions are identical with those formulated by the author in the year 1886, and he affirms that Semon and Horsley have not separated the effects which he allies to electric stimulation and the removal of cortical substance. Even allowing largely for this, it was not possible to obtain a complete paralysis, or a complete and permanent loss of the vocal function. Hence the necessity of admitting that other portions undertook a compensatory function for the destroyed portions, and the existence of sub-cortical centres.

The conclusions are as follows:—

1. Upon the cortex of the brain of the dog there are two bilateral centres, which regulate the movements of the opposite side of the larynx.
2. These centres are connected with other motor centres, and particularly with those presiding over the glottic function.
3. When one of these centres is impaired or destroyed (whatever may be the manner) there does not follow paralysis, but a glottic paresis, on account of the presence of crossed and direct fibres.
4. Bilateral impairments produce a more evident and persistent paresis, without reaching the degree of a true paralysis. *Massei.*

Griffin.—*Hysterical Aphony with a perfect Singing Voice.* “New York Med. Journ.,” May 20, 1893.

THIS was the case of a young girl, and the aphonia was of eleven months’ standing. Her high, middle and low registers were perfect, and she could sing a song that she knew as well as ever, the volume of her voice being unimpaired, and the words, when *sung*, clearly uttered. The ingenious treatment of making her sing words and sentences after her medical man, and then gradually speak them as he dropped into a

speaking voice, was completely successful. This form of vocal abnormality has been seen in men as well as in women.

B. J. Baron.

Kassowitz (Wien). — *Laryngismus Stridulus and Tetany in Children.*
“Wiener Med. Woch.,” 1893, Nos. 13 to 20.

THE majority of authors believe, as Elsasser first pointed out, that a relation exists between rachitis and laryngismus stridulus. During latter years some authors have denied this relation. In his very extensive treatise the author proves that laryngismus is always combined with rachitis and is caused by this disease, and that the treatment must be anti-rachitic; he recommends his own anti-rachitic treatment, consisting in the application of phosphorated cod liver oil.

Michael.

Massei, Prof. F. — *Tracheotomy preceded by Intubation.* “Bollettino delle Malattie dell’Orecchio, della Gola e del Naso,” July, 1893.

A LETTER directed to Prof. Grazzi, in which the author represents the question discussed by Ricci, with the conclusion that, while intubation is undoubtedly very serviceable in tracheotomy (when possible to be performed and according as Catti and Massei some years ago advised), we cannot overlook the real advantages of intubation in croup, and when it fully succeeds we do not find any reason to perform tracheotomy immediately after. The case is very different when intubation does not improve breathing and tracheotomy is required, although in such cases the chances of success are lessened. A surgeon who recommends intubation in croup, in order to perform tracheotomy with great benefit, denies in an absolute manner the services which the first may render in a proportion of about twenty-five to thirty per cent. of cases of croup.

Massei.

Hagenbach-Burckhardt (Basel). — *Retention of Secretions in Tracheotomized and Intubated Patients.* “Correspbl. für Schweizer Aerzte,” 1893, No. 11.

IN cases of tracheotomy for diphtheria the author has sometimes had difficulty in removing the canula on account of retention of secretion in the bronchi. He relates a case in which the secretion was so great that the canula could only be removed in fourteen days, each effort to remove being followed by dyspnœa arising from retention. By the introduction of O'Dwyer's tube, retention of secretion is always observed, and pneumonia often arises from it. During the presence of the tracheal canula, improvement follows from free discharge of the mucus. Intubation, therefore, cannot be regarded as a substitute for tracheotomy, and can only be applied in chronic cases. In healthy and strong children the application of emetics removes the mucus, and by this means the pneumonic complication is often prevented.

Michael.

Monks, G. H. — *Unilateral Laryngectomy. A Case of Excision of the Right Half of the Larynx for Carcinoma—Recovery—No Recurrence at the end of a year.*
“Annals of Surgery,” July, 1893.

THE patient was a man aged thirty-nine, who had suffered from marked and persistent hoarseness for about a year. When first seen the right vocal cord was thickened and reddened, and its movement during

expiration and phonation was extremely limited. There was no marked pain in his throat or difficulty of swallowing. No cachexia was present, and there was no family history of cancer. The case appeared to be a favourable one for operation, as the growth was confined to one side of the larynx, and no enlargement in the cervical glands could be made out. The operation was performed as follows : two straight incisions were made, the one vertical, in the median line of the neck from the hyoid bone to about an inch and a half below the cricoid cartilage, the other horizontal, on the right side of the neck, about the level of the lower border of the thyroid cartilage. The thyroid and cricoid cartilages upon the right side were laid bare, the soft parts having been carefully dissected away. The trachea was opened at the lowest part of the wound, just below the cricoid cartilage, and a silver tracheotomy tube inserted. The whole larynx was then split in front, in the median line, and the two halves held apart while gauze was firmly packed into the lowest part of the cavity upon the tracheotomy tube. The right half of the trachea was now divided just below the cricoid cartilage. The knife was then placed within the larynx, and the posterior part of the cricoid cartilage split vertically in the median line from the front. The thyroid cartilage was then carefully separated from its attachments to the soft parts behind, and after this the thyro-hyoid membrane was divided. Lastly, the superior cornu of the thyroid cartilage was pulled down and cut out. The bleeding was not excessive, and the patient stood the operation well. Microscopic examination showed the normal tissue of the cord to be almost entirely replaced by a new growth made up of irregular masses and nests of large epithelial cells. Here and there broken-down muscular fibres were seen, surrounded by the growth.

The patient made an excellent recovery—breathes easily, talks intelligibly, and sleeps and eats well.

W. Milligan.

Piniaczek (Krakau).—*On Laryngo-Fissure, and the Author's own Experiences of this operation.* “Deutsche Zeitschrift für Chirurgie,” Band 36, Heft 3 and 4.

A PAPER of great interest, because up to now there does not exist any statistical compilation of such rich material observed by so well-known a laryngologist as the author, and assisted by a celebrated surgeon such as Dr. Obalinsky. The statistics relate to forty-two cases, which are shortly reported as follows :—

1. A patient, thirty years old, with chorditis inferior hypertrophica. Treatment with Schroetter's bougies. Some days later tracheotomy necessary on account of attack of suffocation. Laryngotomy, followed with removal of the hypertrophic mucous membrane. Cure resulted ; respiration without canula lasting three months. Later, death occurred from pulmonary phthisis.

2. Membranous adhesions of the larynx from attempts at suicide. Tracheotomy. Galvano-cautery without effect. Laryngotomy and excision of the cicatricial tissue. Sometimes the patient could respire with his canula closed ; but the stenosis recurred, and the patient had eventually to wear a permanent canula.

3. A patient, eighteen years old, with numerous papillomata of the larynx. Cricotomy; extirpation of the neoplasms. Recurrence later.
4. Papillomata of the larynx. Laryngotomy; extirpation of the neoplasms. The growths did not recur, but the larynx became stenosed from cicatrices, so that a permanent canula was necessary.
5. Idiopathic perichondritis thyroidea. Tracheotomy, laryngotomy, and removal of the necrosed cartilages. Cure.
6. Rare case of a mucous polypus seated in the inter-arytenoid region, and of the size of a pea. As the patient had great dyspnoea on account of the arytenoid cartilages being hindered in movement by the neoplasm, this was removed by laryngotomy. Cure.
7. Papillomata of the arcus palato-glossi and the right vocal cord, combined with Stoerk's blennorrhœa. Great dyspnoea. Tracheotomy, laryngotomy, and enucleation of the larynx. The operation had no good effect. The patient remained hoarse, and had to wear a tracheal canula.
8. A patient, eighteen years old, with ozæna and Stoerk's blennorrhœa. Tracheotomy; laryngotomy; enucleation. Cure. Some recurrences were cured by treatment with Schroetter's hard rubber bougies.
9. A patient, tracheotomized some years ago, always had to wear the canula on account of specific laryngeal stenosis. Laryngotomy; extirpation of the cicatricial tissue. After some operations, cure of the stenosis resulted. The hoarseness remained.
10. Laryngeal tuberculosis. Laryngotomy; excision. Improvement. One and a half years later, death from pulmonary phthisis.
11. Chorditis inferior hypertrophica. Laryngotomy; extirpation of the hypertrophied mucous membrane. Cure.
12. Chorditis inferior hypertrophica. Laryngotomy; extirpation of the hypertrophied mucous membrane. Cure.
13. Case similar to case 8.
14. Case similar to cases 11 and 12.
15. Case similar to cases 11 and 12.
16. A girl, sixteen years old, tracheotomized for croup nine years before. Decanulation was not possible, because the whole larynx was obliterated over the canula. Laryngotomy; excision of the membrane; tamponing with iodoform gauze. After some corrective operations the operator was able to remove the canula definitively.
17. A patient tracheotomized ten years previously. The canula could not be removed. The laryngoscope showed old perichondritis and chorditis inferior hypertrophica. Laryngotomy; Excision of the hypertrophied mucous membrane. Cure.
18. A patient tracheotomized for fracture of the larynx. The laryngoscope showed stenosis by dislocation of the cartilages and the mucous membrane. Extirpation of the mucous membrane; reposition of the cartilages. No effect.
19. Cancer of the larynx. Laryngotomy; excision of the neoplasm. Four months later, recurrence. Extirpation of the larynx. One year later, no recurrence.
20. A patient, forty years old, had some years previously perichondritis

thyroidea externa, followed by stenosis. Tracheotomy. The laryngoscope showed collateral swelling of the whole mucous membrane, and eversion of the ventricles. Schroetter's bougies were applied without effect. Laryngotomy ; excision of the swollen mucous membrane. No effect. A second operation, the extirpation of the mucous membrane of the ventricles, the patient did not allow.

21. Case resembling cases 11 and 12. Cure. Chorditis inferior hypertrophica.

22. A girl, four years old, with papillomata of the larynx. Laryngotomy ; enucleation. Death some days later from diphtheria.

23. Case resembling cases 11 and 12. Chorditis inferior hypertrophica. Cure.

24. A patient, forty years old, was in 1890 operated upon for papilloma of the larynx *per vias naturales*. Some months later, recurrence. Laryngotomy : enucleation. Cure. The microscopical examination now showed that in the deeper parts of the papilloma there was an exquisite epithelial carcinoma. One year later, recurrence. Extirpation of the larynx. Cure.

25. A patient, fifty years old, had in the year 1884 perichondritis typhosa and stenosis. In 1886 the laryngoscope showed immobility of the right arytenoid cartilage. Tracheotomy. Dilatation by Schroetter's tin bougies, without effect. Laryngotomy ; extirpation of the hypertrophied tissue ; galvano-caustic treatment of the hypertrophied posterior laryngeal wall. Cure.

26. A patient, thirty years old, was tracheotomized for laryngeal perichondritis. Hypertrophy of the subglottic mucous membrane was found in spite of the immobility of the vocal cords. Laryngo-fissure and extirpation of the hypertrophied mucous membrane. Cure.

27. Laryngeal phthisis and stenosis. Tracheotomy ; laryngotomy. Death.

28. Case similar to 11 and 12. Chorditis inferior hypertrophica. Cure.

29. Case similar to 11 and 12. Chorditis inferior hypertrophica. Cure.

30. Recurrence of rhinoscleroma in the patient described in case 8. Severe stenosis. Tracheotomy ; laryngotomy ; enucleation and galvano-caustic treatment of the hypertrophied mucous membrane. Cure, but aphonia persisting. Some months later a second recurrence. Operation *per vias naturales*. Death from traumatic cerebral haemorrhage from falling of a cab. The *post-mortem* examination showed the larynx to be in a good condition, only filled with cicatrices.

31. A patient, twenty years old, was tracheotomized for typhoid perichondritis. Both arytenoid cartilages were immobile, the subglottic mucous membrane was swollen. Laryngotomy ; extirpation of the hypertrophied mucous membrane. Ten days later the canula could be removed ; but some days later an attack of suffocation necessitated a second tracheotomy. The patient left the hospital relieved.

32. Similar case to 31. Operation followed by treatment with Schroetter's tin bougies. Cure.

33. Case similar to 11 and 12. Chorditis inferior hypertrophica existed in spite of two laryngotomies.

34. Chorditis inferior hypertrophica. Recurrence. *See case 13.* Second laryngotomy : extirpation of the hypertrophied mucous membrane. Cure. Some months later, commencing recurrence.

35. Case similar to 11 and 12. Chorditis inferior hypertrophica. Cure, but aphonia persisting.

36. A patient, forty years old, tracheotomized for perichondritis. Laryngotomy ; extirpation of the hypertrophied parts. Cure.

37. Hypertrophy of the mucous membrane of the larynx and the air tube by tertiary syphilis, treated during one year in Schroetter's clinic. The patient had to wear a long canula. Enucleation of the trachea, so that an ordinary canula can be worn. Laryngotomy ; excision of the larynx. Cure. During the treatment iodide of potassium was also used.

38. A patient, forty-six years old, with cancer of the larynx, commencing in pachydermia verrucosa. Laryngotomy ; excision. Cure. Some months later recurrence, and death from suffocation.

39. A patient, thirty years old, with perichondritis, was treated for some time with tin bougies. Immobility of the left arytenoid cartilage, and swelling of the subglottic mucous membrane, still existed. Laryngotomy ; enucleation of the hypertrophied mucous membrane. The effect was not very satisfactory, and the author has no information as to the result of the operation.

40. Chorditis inferior hypertrophica, similar to cases 11 and 12. Laryngotomy. Cure.

41. Syphilitic cicatrices in a patient tracheotomized some years ago for dyspnoea. Laryngotomy : extirpation of the cicatrices, so that the canula could be removed. Systematic after-treatment with bougies. The cure is not yet quite finished.

42. Perichondritis typhosa, resembling case 39. Laryngotomy ; excision of the hypertrophied mucous membrane. After-treatment not yet finished.

The author then gives a description of the operation. He believes that it is not dangerous. Of forty-two operations, only two fatal cases occurred, but both without relation to the general condition (diphtheria and tuberculosis). Laryngotomy (if tracheotomy is already performed) is less dangerous than simple tracheotomy, also because of the simplicity of the narcosis, which is often dangerous in cases of tracheotomy. The cricoid cartilage is best cut by a hemiotome. The aspiration of blood is prevented by tamponing of the trachea, or by Rose's position. If there is a reaction from the mucous membrane, consisting in coughing, it must be brushed with cocaine. Sometimes it is not easy to put the patient in the right position to determine the anatomical details ; this is easier by remarking the ventricles of Morgagni, by the use of a reflector, and by provisory tamponing. When the operation is finished, a tampon is introduced in the larynx, to control haemorrhage, and also for dilatation. The canula must be removed if possible after a few days. Laryngotomy, without tracheotomy, is never performed by the author. It is better to perform tracheotomy some days before than both operations at once : crico-tracheotomy is to be preferred. The operation should only be

performed if endo-laryngeal operation is impossible, or without success, as in broad and deeply-seated benign neoplasms of the larynx; malignant neoplasms, as long as it is possible to remove them without extirpation of the larynx; stenosis, which cannot be cured by systematic endo-laryngeal dilatation; chorditis inferior hypertrophica, where the extirpation of the hypertrophied mucous membrane is indicated; perichondritis and fractures of the larynx for reposition of the fragments; impacted foreign bodies. Tuberculosis is only in rare cases an indication for the operation.

The reader may excuse the length of this report, as it must be said that for a long time no laryngological paper of such great interest has been published, and especially that up to the present no other surgeon has had so great an experience of the question of laryngotomy.

Michael.

Zeller.—*Tracheal Fistula.* Stuttgarter Aerztlicher Verein, Meeting, Nov. 3, 1892.

A GIRL, aged sixteen, cured of this condition, was shown. The patient was tracheotomized for papillomata of the larynx. The neoplasms have been removed by endo-laryngeal treatment. The canula could be removed; but the tracheal fistula did not close spontaneously, and had to be closed by a plastic operation.

Michael.

Kruse (Norderney).—*Treatment of Asthma Bronchiale seu Nervosum.* “Wiener Med. Woch.” 1893, Nos. 22 and 23.

REPORT on the different methods of treatment, and a recommendation of sea air.

Michael.

REVIEWS.

Macdonald.—*Diseases of the Nose and its Accessory Cavities.* By GREVILLE MACDONALD, M.D. London : Alexander B. Watt, 2, Paternoster Square.

THE popularity of this work has been shown by the call for a second edition in little over twelve months after the publication of the first. The author has made several valuable additions on the important subjects of croupous rhinitis and cysts of the middle turbinate bone, while the much disputed and interesting question of the association of asthma with nasal disease has been revised and in some parts modified. The surgical procedures have also been reviewed; the volume is made still more interesting by the writer's experience in the treatment of deviated septum and post-nasal adenoids, and thirteen new cases have been added to the table of cases of empyema of the antrum. It will thus be seen that the second edition is much more extensive than the first, and it may at once be said that the work as it now stands must prove a valuable help to the senior student and general practitioner.

In criticizing such a work as this, one must always take into account

the object which the writer had in view, and in his preface to the first edition he states that his main intention was to produce a treatise on diseases of the nose which would familiarize the general practitioner with a subject which has not hitherto received the attention it deserves. That the author has succeeded in his intention is quite evident, and it is right to remember that in no branch of medicine does there exist more difficulty in bringing an intelligent account before the reader of this comparatively new branch of medical study. It need hardly be pointed out that the literature is very great : that the whole treatment both in its medical and surgical aspect is at present under discussion, and that it is by no means an easy matter to give the student of medicine an accurate account of the many prevailing ideas on such a variety of questions as must be referred to in a work like this. It would be very hard indeed at the present day to write a complete treatise upon the subject, but the author has given us what is as valuable—viz., the result of personal experience, and that in an able, clear, and scientific way ; consequently the profession is indebted to him for enriching the English medical literature with this work. Dr. Macdonald has not contented himself with theories, although these are by no means overlooked. On the contrary, the anatomy, physiology, and pathology have been carefully gone into. It may safely be predicted that the present edition will be more popular and successful than the first.

J. Macintyre.

Haweis, The Rev. H. R.—Sir Morell Mackenzie, Physician and Operator.
A Memoir Compiled and Edited from Private Papers and Personal Reminiscences. London: Allen & Co. 1893.

If the spirit of the departed physician could revisit this mundane sphere, well might he exclaim, "Save me from my friends!" A more injudicious, tactless, and foolish biography was never presented to the world. The major part of the book is occupied by a *rechauffée* of the exciting, though not inspiring, controversy which raged during the years 1887 and 1888. Real friends of Mackenzie had hoped that the professional and unprofessional amenities, enmities, and fiascos of this period were dead and decently buried, and on the way to being remembered no more, but here we have the ghost of the controversy resuscitated and made to dance to an accompaniment of Mr. Haweis's fireworks. The family of the late physician seem to have made an effort to suppress the work, and some unedifying letters in the daily papers would appear to leave the blame of its publication with author or publisher. With whomsoever this blame must rest, the real friends of Morell Mackenzie cannot but feel that author or publisher, or both, have done but a sorry service to the memory of a striking man. If Mr. Haweis had called himself the enemy of Mackenzie instead of posing as a friend, readers might have thought that, however bad the taste of the writer, he had at least succeeded in scoring points against his adversary. Save us all from biographers of this description!

R. Norris Wolfenden.

Joal.—*De la Respiration dans le Chant.* Paris: Rueff et Cie. 232 pages.

DR. JOAL has produced a very interesting little book, in which he deals with the question of the correct method of breathing for the train-

ing of the singing voice. The book is dedicated to M. Jean de Reszké, from whom Dr. Joal has derived much assistance. The following are the rules laid down for the singer :—

1. Not to raise the clavicle and upper ribs.
2. To fully dilate the lower portion of the thorax.
3. To depress the abdominal wall in its inferior region, *i.e.*, the umbilical and hypogastric regions.

The anatomy and physiology of the respiratory mechanism are first dealt with, then the different types of respiration (costal, clavicular, and abdominal). According as age advances, the normal type of respiration becomes more markedly superior costal in the female, and of nearly equal proportion of costal and abdominal in the male. The direct influence of the corset is traceable in determining the superior costal type of breathing in the female.

In ordinary tranquil respiration the movements of amplification of the thorax are principally felt in the vertical and transverse diameters, assisted by the contraction of the diaphragm, which plays a preponderating rôle in the mechanism of ordinary respiration. In artistic respiration the conditions are somewhat different from simple tranquil breathing, and the objects to be attained are, to make an ample provision of air; to expel it under strong pressure; to regulate its exit; to increase the resonance of the thoracic cavity. The dilatation of the chest ought therefore to be in its three diameters, and should be total and not partial.

The author then sets himself to disprove the theories of Mandl, and condemn the practice founded upon these theories in the training of singers, and to discuss in considerable detail the three methods of respiration which have been taught, *i.e.*, the clavicular, the abdominal, and the costal. Spirometric investigations are recorded, showing that with the latter the singer obtains a greater respiratory capacity than by either of the other two methods of breathing, a method which also, by increasing the resonance of the thorax, reinforces the sounds produced. This is a return to the practice of the old Italian masters of singing. Chapters follow upon the education of respiration, and its hygiene, and the book closes with two short chapters dealing with local and general conditions which impair or disable the singing voice.

It would not be fair to Dr. Joal to abstract his book. Enough has been said to indicate that it is an interesting and valuable contribution. The author is himself an excellent musician, and is entitled to deal with these matters in a double capacity. It is a book which ought to be attentively studied by singers as well as practitioners, and if its precepts were carried out we should see fewer of the cases of vocal disability which we constantly meet with in vocalists who have learned to produce their voice in a faulty method, or have been left to evolve a method of respiration out of their own inner consciousness. Singing pupils are often at the mercy of ignorant teachers. Would that Dr. Joal's little brochure could be "read, learned, and inwardly digested" by these latter!

R. Norris Woifenden.

Behring (Berlin).—*Die Geschichte der Diphtherie. Mit besonderer Berücksichtigung der Immunitätslehre.* (“History of Diphtheria, with Special Reference to the Study of Immunity.”) Leipzig: Georg Thieme. 1893. 208 pages.

THE book begins with an interesting open letter of Bretonneau (1855), who was the first to acknowledge the infectious character of the disease. The second part advances the view that diphtheria and croup are the same disease. That genuine diphtheria and scarlatinal diphtheria are only similar in symptoms, but different in cause, is confirmed by Loeffler's investigations. The third chapter treats of the history of the etiology of diphtheria, mentioning the first work on the subject, viz., a collection of views on diphtheria, edited by Friedländer, in Paris, 1808, and gives a detailed report of the investigations of Oertel, Loeffler, and others. (The interesting paper of Heubner is not mentioned.) The following chapter, on the cure of diphtheria, is in its greater part dedicated to the great merits of Bretonneau, who first recommended tracheotomy and calomel treatment. The contents of the last chapters, dealing with the treatment by blood serum, is known to our readers by the reports abstracted in this Journal.

We must admit that the book is a very interesting and original one; that it certainly will be read not only by Germans, but also in other countries, and we can prognosticate for it several editions and translations into other languages, but it should not be called a history of diphtheria; it is a well-founded apotheosis of Bretonneau, Loeffler, and Koch, and a careful report upon the author's investigations. Of the numerous other authors, only a few are mentioned shortly. Of the many methods of treatment, only the mercurial treatment is reported in detail, and in a history of the treatment, notice ought to have been taken of the chlorate of potash treatment, which has been more extensively adopted than any other during the last ten years. This criticism is not at all meant to condemn the book, but only refers to the title. “Die flagge soll die Ladung decken,” says a German proverb.

Michael.

Guttmann, S. (Berlin).—*Jahrbuch der Praktischen Medicin, Jahrgang 1893.* (“Annual of Practical Medicine.”) Stuttgart: Enke. 1893. 852 pages.

ANNUAL report on the medical work of 1892, with special regard to the use of practitioners. The report on diseases of the nose and larynx is by Michael (Hamburg), that on diseases of the ear by Koch (Brunswick).

Michael.

Schroetter (Wien). — *Vorlesungen über die Krankheiten des Kehlkopfs.* (“Lectures on the Diseases of the Larynx.”) With 111 woodcuts. Second edition. 484 pages. Wien and Leipzig: Braumüller.

DURING the last two years we have reported upon the single parts which have appeared of Schroetter's book. In the short space of time before the second part of the book, treating of nasal diseases, had appeared, a second edition became necessary. We congratulate the author upon his well-merited success, and can here only repeat our recommendation of the first edition.

Michael.

Archiv für Laryngologie und Rhinologie. Edited by Prof. B. FRAENKEL, Director of the Polyclinic of Diseases of the Throat and Nose in Berlin.

IN Germany we have had up to now no special journal of laryngology in which scientific papers relating to our specialty could be published. The editor is therefore to be commended for creating such an organ, and we can give a good prognostication for his work, which will have the interest of all specialists. A great many well-known specialists are collaborators. The third and fourth parts will appear during the year. The first part contains contributions by B. Fraenkel, P. Bruns, M. Schmidt, Hopmann, Schmiegelow, and others. We will report on the papers in future numbers of this Journal.

Michael.

The Medical Annual, 1893. Bristol: Wright & Co.

THIS book has become an annual institution, and is, no doubt, of great service to the busy practitioner. The articles upon throat and nose surgery have been done on the whole fairly well, but we cannot refrain from remarking that on pages 505-508 will be found a long article upon massage of the throat, which is taken bodily from a review of the subject of Kellgren's and Laker's works contributed by us to the JOURNAL OF LARYNGOLOGY, June, 1892. We appreciate the compliment, but think that the transferring bodily our article from this Journal to the "Medical Annual" should have been accompanied by at least a reference to that Journal. Even our critical remarks upon Laker's and Kellgren's work are copied into the Annual, and all without the slightest acknowledgment! In the case of a short abstract such an occurrence might inadvertently take place, but it is surely unusual to appropriate a long original article without reference to either its author or the publication in which it appears, and especially to put it under the name of someone who never had anything to do with its composition. This is an obnoxious form of literary piracy.

R. Norris Wolfenden.

ASSOCIATION MEETINGS.

THE BRITISH LARYNGOLOGICAL AND RHINOLOGICAL ASSOCIATION.

The Fifteenth General Meeting was held on June 30th at the Rooms of the Medical Society of London.

Dr. ARTHUR SANDFORD (Cork) in the Chair.

The following officers were unanimously elected for the ensuing year:—

President—Dr. MACINTYRE, Glasgow.

Vice-Presidents—Dr. W. MCNEILL WHISTLER, Dr. NORRIS WOLFENDEN, Mr. MAYO COLLIER.

Council: Metropolitan—Dr. ED. WOAKES, Dr. ED. LAW, Mr. GEO. STOKER, Mr. LENNOX BROWNE, Dr. SANDFORD (*ex officio*). *Extra-Metropolitan*—Dr. MILLIGAN, Manchester; Dr. RICHD. A. HAYES, Dublin.

Hon. Sec.—Mr. WYATT WINGRAVE.

The following gentlemen were elected fellows :—

- Dr. F. C. EWING (Washington).
Mr. M. HAUGHTON (Birmingham).
Dr. F. R. MUSSER (Philadelphia).
Dr. KIRK DUNCANSON (Edinburgh).

After the transaction of some formal business—

Dr. WHISTLER read notes of a *Case of Laryngeal and Pulmonary Tuberculosis, with arrest of disease for many years.*

R. F., aged thirty ; occupation, photographer's assistant.

Notes.—Patient (then aged seventeen) applied at my clinic, 30th October, 1880, with the following symptoms : distressing sore throat, great difficulty in swallowing, voice reduced to a coarse whisper, constant cough, with muco-purulent expectoration, anaemia, emaciation, extreme weakness, and very marked febrile temperature. *Local signs* : pallid pharynx, with some scattered and circumscribed points of congestion on the posterior wall. *Larynx* : thickening and inflammatory redness of epiglottic and aryepiglottic folds, with ulceration of the former, oedema of arytenoids overlapping the posterior portion of the glottis, diffuse infiltration and deep redness, with central linear fissure of the inter-arytenoid fold. Ventricular bands, red and bulging inwards, showed creeping ulceration, most marked on the left side ; vocal cords very red and broad, the left one ulcerated, with jagged edge. Their apposition was very defective during phonation, owing to the impaired mobility of the arytenoids, the swelling of this region, and the loss of substance of the left vocal cord. *Thoracic signs* : dulness, prolonged expiration over both apices, with fine *râles* over the right. No family history of tubercular disease was made out at this time. Since then a brother died of pulmonary phthisis. The mother has lupus of the nose.

Treatment.—This consisted of sedative inhalations (benzoin and conium) associated with remedial measures to allay the acute dyspeptic symptoms, followed, as soon as the gastric irritation was subdued, by cod liver oil. In addition to this, detergent solutions of soda and borax with carbolic acid, astringent lotions containing sulpho-carbolate of zinc and boracic acid, and antiseptic applications of eucalyptol in adepsine oil—all applied in fine spray to the larynx—together with insufflations of morphia, alone or in combination with iodoform and oxide of zinc, comprise the local applications employed. Under this treatment the patient before long showed distinct signs of improvement. By January the cough was much less distressing, the soreness of throat and dysphagia were greatly relieved, and his voice was much improved. By the middle of February the laryngeal infiltration and inflammation were much less pronounced, the ulceration was healing, and there was marked amendment in his general health. In May the ulceration was healed.

In August, 1881, during the meeting of the International Medical Congress in London, I showed the patient at the demonstration of cases in the section of throat diseases. The laryngeal signs then were as follows : thickening of the ventricular bands, with loss of substance of

the left one, just in front of the arytenoid cartilage from the former ulceration, together with hypertrophy, redness and roughness of the vocal cords, and of the inter-arytenoid fold. There was no ulceration or oedema, and a free view could be obtained into the trachea. The patient was in a fairly comfortable condition. He was able to take regular exercise, had a good appetite, and was steadily gaining in weight. He was now fairly free from cough, and spoke without pain or fatigue with a good, though still rough voice.

During the autumn of that year he again presented himself at the clinic, after several weeks' sojourn in the Convalescent Home at Eastbourne, greatly benefited by the change. There was no return of ulceration in the larynx, the laryngoscope showing on the contrary exceptionally marked dense cicatrices over the ventricular bands, with some thickening and a papillomatous outgrowth on the anterior face of the inter-arytenoid fold. All active disease in the lung was arrested. He had been wearing for a long time, and almost constantly each day, a respirator containing creasote sprinkled on cotton wool : and taking large doses of cod liver oil. I may say here that the patient has kept up these remedies at longer or shorter intervals up to the present time.

Since 1883, at which date he resumed his work, the patient's progress has been one of continued improvement, and he has been regularly engaged at his business for ten years. I have followed his case at intervals of six or eight months, from the time I ceased active treatment to the present time.

In April, 1892, there were, for the first time, some threatening indications of acute relapse. His cough became very troublesome, accompanied by pain in the chest. He had been gradually falling off in general health for a few weeks, the debility being associated with slight rise in temperature. The larynx was, however, as before, free from any signs of active disease—no renewed infiltration or ulceration.

There was some dulness over the right apex, with harsh breathing and dry superficial crackling from pleuritic thickening of long standing. Tuberle bacilli were found in the sputum. The creasote inhalations were renewed, together with cod liver oil and malt. All the symptoms were relieved by this, and the patient has remained well through the winter. He is now free from cough, pain, or hoarseness, is in good condition, and has gained half a stone in weight during the past six months. He has been all this time at work, and the only inconvenience he has experienced is occasional oppression in breathing if he takes any violent exercise.

Present laryngoscopic signs.—Limited loss of substance on the right border of the epiglottis from former ulceration—presenting two small crescentic cicatrices with whitish-grey borders : vocal cords broad with more marked thickening and redness of the right one (but no ulceration of either) ; and a very narrow web springing from the vegetations of the inter-arytenoid fold, and extending to the posterior attachment of the vocal cords. Free movement of the cords in adduction and abduction.

This case was published by me in 1883, in a paper on "The

Prognosis of Laryngeal Phthisis as influenced by local treatment." I have much pleasure in bringing the patient before the society now, to report his subsequent progress, and show the very exceptionally favourable result so far obtained, after a period of over twelve years. Tubercle bacilli are still present in the sputa. The thoracic signs at this date are, weak breathing over both lungs, with bronchophony, and pleuritic crepitus at the right apex. The temperature is normal.

Mr. LENNOX BROWNE pointed out that it was often the case that long after the symptoms had subsided bacilli might be discovered in the sputa. This had been strikingly exemplified in the case of a patient shown by him before the Medical Society some years ago. That patient came to him with such marked dysphagia that she declared that she would rather die than undergo the suffering entailed by attempts to swallow. On examination she was seen to be suffering from tuberculosis of the pharynx, larynx and fauces, but under treatment recovered completely. Nevertheless, four or five years afterwards the saliva and sputa contained tubercle bacilli. He had seen her six months ago, and then no bacilli could be discovered. The persistence of the bacilli after subsidence of the symptoms was a point of some importance when we were considering a question of cure.

Dr. WOLFENDEN said it must be within their recollection that Dr. Hunter Mackenzie had read a paper on that very subject some years ago tending to prove that the presence and abundance of the bacilli in the sputum bore no ascertainable relationship to the activity of the disease. He pointed out that the local conditions were greatly dependent on the general condition of the patient, and if the general condition improved then the local lesions would improve under almost any treatment. He himself always adopted a plan of treatment consisting in scraping, curettage, and applications of lactic acid. The results were by no means uniformly successful, but he had seen some cases of cure of local lesions, and many in which the patients remained free from symptoms for a considerable time. His experience had taught him that, where the general condition of the patient did not improve, no treatment afforded much benefit locally, and that a small proportion of individuals whose general condition was favourable might be cured of their local lesions by mild local measures.

Dr. WHISTLER, in reply, admitted that the case was quite exceptional, and the result was not one that they could anticipate in the majority of the cases that came under treatment.

Dr. MACINTYRE said that the fellows of the Association were indebted to Dr. McNeill Whistler for the very interesting case which he had brought before them. Now and again we met with cases where, in spite of distinct evidence of tubercle, the patient's history seemed tolerably good. He had had an interesting case of phthisis, something like ten years ago, shortly after the opening of Anderson's College Dispensary. On making careful examination of the throat, no doubt existed in his mind as to the presence of a specific ulcer in the inter-arytenoid membrane. It might be useful to note also that the diagnosis of phthisis laryngea was made in this case by other observers skilled in the use of the laryngoscope. Confirmation of the nature of the disease had been got by the examination

of the sputum, but search for the bacillus was not made when the patient was first seen, for the simple reason that we were not then in the habit of so doing. However, on going into the patient's history it was found that he had been in the Glasgow Royal Infirmary seven years previous to the first consultation. The hospital records showed that the patient had seventeen years ago suffered from haemoptysis, and the diagnosis of phthisis was made at that early date. For seventeen years, therefore, this man had been able to go on with his work and, as far as could be judged, in relatively good health. Of course we had to look upon all such cases as exceptional, but recent investigations by Dr. Coats had shown that fifty per cent. of our population, at one time or another, in one or other part of the body, had suffered more or less from tubercular deposit, and it was therefore reasonable to conclude that a number of people so affected recovered.

Dr. NORRIS WOLFENDEN.—*Lupus of the Skin, Mouth, Pharynx, and Larynx, with Pulmonary Phthisis.*

The patient was a girl, aged nineteen, whom he saw for the first time on April 19th, 1893. She said she had been ailing since October, 1891, when she suffered from influenza, and in January of last year she lost her voice with cough and expectoration, which continued until June, when she almost completely recovered. She fell ill again in August, 1892, and has been unwell ever since. When he saw her an abscess had broken in the jaw, which had continued to discharge since. A lump was seen near the inner angle of the eye, being apparently a tubercular nodule. The epiglottis was almost completely destroyed, only the base remaining. The inter-arytenoid commissure and the ventricular bands were enlarged, with lupoid infiltration, the cords being hidden. The base of the tongue was lifted up into nodular folds, and was much fissured. Both lungs were extensively infiltrated with tubercular deposit, but no indication of active mischief was discovered anywhere. Surgical treatment seemed difficult to carry out in such a case, and having had the advantage of a consultation with Dr. Heron, it was decided that tuberculin should be given a trial. This not being procurable at the time, injections of tuberculocidine were made. She was given in all thirteen injections in increasing doses. There seemed to be some reaction after the first dose or two, the injections being made in the neighbourhood of the lupoid tissue of the face. The reaction only lasted a day or two, and even when the dose was carried to 2 c.c. no further effect was apparent. Some improvement was noted in the condition of the tongue, which was less tender and did not bleed so much. On one occasion, when the injections had been suspended for a day or two and were recommenced with a stronger dose, the temperature went up to 102° F. The interesting point was the association of lupus with tuberculosis of the lungs. He pointed out that tuberculocidine was a product introduced by Klebs to supplant tuberculin, the irritating and pyretic properties of which were extracted. Carl Spengler advised a combination of the two substances. That was the next thing he would try, and failing relief he should proceed to surgical measures. He alluded to a paper by Mr. Malcolm Morris,

which seemed to show that patients who had been treated by tuberculin were subsequently more amenable to surgical measures. This was, if true, an important observation.

The PRESIDENT said that in his experience tuberculin had not given any number of good results.

Mr. LENNOX BROWNE referred to a case which he had again exhibited that day. It had been shown by him on a previous occasion, to which some doubt had been expressed as to the diagnosis, a suggestion having been made by one fellow that the lesions were syphilitic. Since then, the patient had been put on a course of mercurial inunctions, followed by a course of iodide of potassium to considerable doses without in any way affecting the condition, and, in fact, had proved curiously unresponsive to treatment of all kinds. He had come to the conclusion that tuberculin acted on the lesions just in the same way as an attack of erysipelas. He referred to a case, also shown at the last meeting, in which the patient each time developed an attack of erysipelas followed by some improvement, and then the case went back just as it did after the tuberculin reaction. Mr. Mayo Collier had reminded him that several cases had been reported as treated by a saturated glycerine solution of sulphurous acid. He had adopted this treatment with great diligence in the case today shown, and certainly with more benefit than had attended any other method of treatment. In the other case, the application of the glycerine solution had provoked such a rise of temperature and a threatening of erysipelas that it had to be abandoned. Considering how negative were the symptoms which followed even serious stenosis in cases of laryngeal lupus, he was not at all sure whether any local treatment was of much good and he thought it was best to attend to the general health. Two facts of interest had been brought before them in confirmation of the opinion that lupus was a tuberculosis. In one case they had been shown a case in which the mother of a patient with laryngeal phthisis suffered from lupus in the throat, while in another there existed in the same individual dermal and pharyngo-laryngeal lupus with pulmonary phthisis. With reference to the presence of bacilli, admitted to be but rarely found in lupus, he asked Dr. Wolfenden whether he had ever come across a case in which bacilli had been found when the lupus of the mouth and throat was not associated with pulmonary tuberculosis. He had only seen one such specimen and that not in his own practice. He had written to Koch asking to be favoured with a specimen of this sort, but he had been told that none were then available. It had always been taught that the dysphagia associated with laryngeal phthisis tended very much to aggravate the prognosis, and doubtless this was true to some extent; but it was a question whether the improvement in general health and lung condition which followed successful local treatment of laryngeal tuberculosis was not directly due to this last circumstance.

Dr. GRANT said that in some cases the nostrils were almost plugged by masses of lupoid growth, and in these local treatment was eminently desirable. He mentioned the case of a young lady, seventeen years of age, who had suffered from sore throat for two years. She had a curious squeaky voice, owing chiefly to the obstruction of the nostrils. The

disease had extended up the nasal duct on to the caruncles and there was some ulceration of the conjunctiva over the puncture, with consequent grave discomfort. There was erosion of the roof of the mouth, and the larynx presented appearances similar to those in Dr. Wolfenden's case. Great comfort was afforded in this case in scraping away the vegetating masses (specimen shown by Mr. Wingrave) from the nose, the return of which was almost completely prevented by the application of salicylic acid, in the form of an ointment. He then applied lactic acid to the mouth with satisfactory results. He referred to a case brought by him before the first meeting of the Association, that of a girl with a patch of lupus on the skin of the face and in the interior of the nostril, which was almost entirely occluded. She had a peculiar appearance of the teeth and gums, figured in Mr. Lennox Browne's book. He scraped thoroughly, and applied lactic acid to the palate, applying salicylic acid to the nostrils with satisfactory results. This method of treatment was applicable in regions not readily accessible, and it had this further advantage that it could be carried out by the patients themselves. He used ten grains of the acid in 5ss of vaseline. At the same time he agreed that a good deal depended upon the general treatment. In this case he had given cod liver oil, iron, and arsenic. He pointed out that in certain cases local treatment was not devoid of danger.

Dr. WOLFENDEN, in reply, said he had certainly seen the bacilli, though they were rare in cases apart from tuberculosis elsewhere. He had particularly desired to elicit an opinion whether, as alleged, tuberculin assisted subsequent surgical treatment. If this was true, it was a very important therapeutical point.

Mr. LENNOX BROWNE said they had only obtained benefit from tuberculin in one case of tuberculosis of the ear. In that case some doubt had been thrown on the diagnosis, but it reacted to tuberculin. A great reduction of the swelling and healing certainly followed injections in that case, and there had been no relapse when he saw the patient some time after. He did not mean to say that there were not some cases of lupus that would not benefit by local treatment, but the majority would not and might even get worse. In patients with lupus of the larynx, local treatment sometimes rendered necessary an unduly urgent tracheotomy.

Dr. MACINTYRE said that in one case under his care which had been treated by tuberculin the application of the cautery had been followed by better results than previously obtained. He suggested that the matter was one of sufficient importance to make it desirable that some investigation on this point should be undertaken by the fellows of the Association. For example, it would be very easy for a number of them to take cases which had been already treated by tuberculin, and apply the actual cautery, and note the results for a future meeting of the society.

Mr. WYATT WINGRAVE.—*A Case of Suppurative Ethmoiditis with Caries.*

The patient, a male, F. R., aged thirty-six, presented himself at the Central London Throat Hospital some months since, complaining of pain

over the eyebrows and discharge from the left nostril. He attributed it to an attack of influenza eighteen months ago, which left him with an excruciating pain over the bridge of the nose and dryness of the nostrils. At the end of a week "something gave way," and a profuse yellowish discharge came on, which soon became white in colour. Ever since, he has continued in much the same way, with alternating periods of supranasal pain, blocking of nostrils, and slightly fetid discharge, which are always worse in cold, damp weather.

There is no history whatever of any specific nature, he has two healthy children, and does not remember a day's illness with the exception of the one attack of influenza.

On examination of the nostrils some creamy pus is seen just below the left cristo-ethmoidalis, but nothing else abnormal beyond occasional turgescence when "he has a cold." On passing a probe upwards and backwards, by the outer side of the left middle turbinal (*i.e.*, through the pus) at a depth of about three-quarters of an inch bare bone is distinctly felt, in an apparently large-sized cavity, and which is evidently one of the anterior ethmoidal spaces.

There is no indication of polypus, nor has he any knowledge of ever having suffered from such a thing. His maxillary sinus is at present apparently free from disease, and there is no history of any symptoms indicative of its being involved, but it is an open question with regard to his frontal sinus. It is more than likely that this, too, is free, for although the pain is often referred to the superciliary region, it has never extended far upwards, and is generally over the bridge of his nose. Whilst transillumination has excluded disease of the maxillary sinus, the conditions revealed by the probe are quite sufficient to establish disease of the walls of the anterior ethmoidal spaces, but it is probably only a question of time ere the other contiguous chambers become involved.

At present nothing had been done in the way of active treatment, as the writer was anxious to exhibit an "untouched" case, but it was proposed to freely open up the diseased chamber and irrigate it with alum-nol. The symptoms certainly did not justify an opening into the frontal sinus from the skin.

The patient was exhibited as a good example of a class of cases which are by no means rare, and of whose existence the probe is necessary for demonstration.

Under the microscope are shown sections of tissue removed from an almost identical case, in which will be seen well-marked bone absorption and active caries. The osteoclasts or absorption cells are remarkably prominent; but it must not be assumed that the presence of giant osteoclasts necessarily indicates disease, for very few sections of healthy ethmoids are free from them, especially in early life; they are, in fact, performing a necessary and physiological function, that of absorption or "cancellation," and it is only when their action becomes exaggerated that we are justified in interpreting the process as a morbid one. This detail is, however, of great importance, because the writer believes that in it will be found a definite clue to many of the pathological changes to which the ethmoid region is liable.

Very slight causes, such as attacks of acute or subacute catarrh, will readily excite an exaggerated activity of these cells, constituting a process of slow periostitis, and resulting in true caries.

A condition similar to this in principle, is seen in the pathology of rickets, which is essentially an inflammation of growing bone.

This active atrophy of the walls and consequent enlargement of the spaces is at the same time increased by the swollen mucous membrane blocking the narrow orifices of the ethmoid sinuses, so preventing the escape of the morbid secretions, and giving rise to the different varieties of cystic disease.

These histological changes are practically identical with those described by Dr. Woakes under a different name and with a different interpretation. They, however, substantially corroborate much that Dr. Woakes has advanced, and may assist the further consideration of so important a disease, whose existence is not only doubted but even denied by surgeons of repute.

Dr. GRANT observed that the case was a very typical one. There was a danger of getting into a groove, and seeing in every case an illustration of the special disease, which, in its exaggerated form, took on the appearances described by Mr. Wingrave. A recent German writer, for example, seemed to think that in every discharge from the nose there was empyema of one or other of the cavities of that organ. This writer had a very simple rule for treatment. He said they probed far too little, and whenever they saw pus they ought to probe, and that when they could feel bone then they ought to scrape. The writer doubtless went too far, but there was a good deal of truth in what he said, and it was their business to distinguish between the "Wahrheit" and the "Dichtung." He asked under what conditions was caries to be met with in rhinitis and polypus. In most cases of polypus there was no caries, but possibly, by instituting a more careful search, exposed bone would be discovered more frequently than was at present thought to be the case. He regretted that Dr. Woakes was not present on that occasion to put before them his own interpretations and treatment.

Dr. MACINTYRE.—*Multiple Papillomatous Tumours of the Larynx and Bronchial Tubes.*

Mrs. K., aged thirty-two, was sent to me on the 15th March, 1889, by Dr. John Nairne, of Glasgow, suffering from loss of voice. The patient had lost her voice twelve months previously. A careful examination of the general and local condition of the patient revealed two things of importance; firstly, mischief in the larynx itself, and secondly, great irritation in the bronchial tubes. The patient was quite aphonic; there was great difficulty in breathing, and there was also a great deal of expectoration. On microscopic examination the whole interior of the larynx below the level of the ary-epiglottidean folds was seen to be filled with papillomatous masses. The tumours sprang from the true cords mainly, but it turned out afterwards there was also one sub-glottic neoplasm just below the anterior angle. There was a good deal of irritation in the region, and the exact location of the tumours could not be made out because of the

profusion of the growth. The tumours were removed under cocaine, in the presence of Dr. Nairne, but required four sittings to completely remove them ; Mackenzie's forceps were used. The voice was perfectly well within a fortnight, and the difficulty in breathing was practically removed. From then until now the larynx has remained absolutely normal, and there has not been the slightest recurrence of the growth. Histological examination of the tumour showed that we were dealing with benign multiple papilloma.

The history of this case is interesting. She was treated before coming to me in Glasgow, then on the Continent, first for phthisis, next for syphilis ; the parts were cauterized with the galvano-cautery and chromic acid, but the larynx remained unchanged. The second important part of her history is that relating to the presence of severe bronchitis. For many years she had been subject to this, and the winter following the operation she was seriously ill with an acute attack. Dr. Finlayson was called in consultation. There seemed to be some complication, and I was asked to examine her about eight months after the removal of the laryngeal tumours. The patient always complained of great irritation at the lower part of the trachea, and careful examination revealed the fact that there seemed to be some unusual obstruction to the breathing in this region, and the inspiratory and expiratory sounds gave indication of stenosis suggestive of a movable body. Some light was thrown upon this shortly afterwards by the coughing up of a small papillomatous mass followed by a little haemorrhage. The bronchitis was recovered from, and since then she has four or five times coughed up similar masses. So urgent had the symptoms become upon one occasion that I suggested the advisability of doing a low tracheotomy, and making some attempt to remove the obstruction in the lower part of the trachea. Fortunately this was not required, because when the case became most urgent the papillomatous masses were expectorated. The last portion was coughed up about five months ago. This specimen I have with me, and under the microscope a section will be seen showing it to be much the same as the laryngeal neoplasms. It is satisfactory to note that during the past four years she has greatly improved in health. The patient was seen by me lately, and is now in good health.

The PRESIDENT recalled a similar case with a less fortunate result. Two years ago the patient, a sailor, was treated for a so-called specific ulcer of the soft palate. This turned out to be an epithelioma of the soft palate and tonsil, and he removed about three-quarters of the palate, together with the tonsil. The patient obtained great relief, and, though nearly two years had elapsed, there was no recurrence. Subsequently, about six months ago, he returned with swelling of the glands of the neck, but he was then lost sight of. Three months later the enlargement had assumed considerable dimensions, but there was no sign of recurrence within the throat. He looked upon it as a hopeless case, and at the present time the patient was practically moribund.

Dr. GRANT said that it illustrated the very curious tendency of papilloma to disappear suddenly from the surface of the skin, and the sudden disappearance of papillomata following tracheotomy. This tendency was an

interesting point in the chapter of laryngology. He regretted that Mr. Lennox Browne was not present to discuss the question whether or not there were post-nasal growths in this case. That raised the question whether adenoids or other form of nasal obstruction did not favour the formation of neoplasms in the larynx. Some years ago he had brought forward the case of a child with papilloma of the larynx, in which endeavours had been made to remove them by means of the snare, quite ineffectually, however, and he had to resort to Mackenzie's forceps, which enabled him to effect their removal without any great difficulty. After many attempts he found that even the little pedicles had totally disappeared, and the laryngeal surface was perfectly healthy.

Mr. WINGRAVE asked whether the child suffered from papilloma elsewhere. In the case of a single papilloma it was easy to ascribe their origin to irritation, but when there were such large numbers as were sometimes seen it was suggestive of some other cause at work beyond a merely local influence. In fact, one could not but think of a possible papillomatous dyscrasia as suggested by Dr. Wolfenden. He asked whether in any of the cases of multiple papilloma of the larynx there had been a marked tendency to the formation of papillomata elsewhere. Of course the skin was not derived from the same layer of the blastoderm as the mucous membrane of the larynx. The specimen, under the microscope, was a beautiful example of a typical papilloma, though the prickle cell arrangement was not as obvious as was sometimes the case. He concluded with a reference to the possibility of irritative papillomata assuming malignancy.

Dr. WOLFENDEN said that he was not the first to suggest the possibility of there being a papillomatous dyscrasia. This idea was a very old one, particularly with French pathologists. The case referred to by Mr. Wingrave was one of multiple papilloma of the uvula, larynx, and ear, occurring simultaneously in an adult. It was on that occasion that Mr. Lennox Browne made some remarks about the connection between adenoids and the existence of papilloma of the larynx. He himself had hesitated a good deal to accept such a causal connection, and pointed out that many people were subject to hypertrophies of the lymphatic system generally, and when these two things, post-nasal adenoids and papillomata of the larynx, occurred together it was possible that the latter were also due to lymphoid overgrowths in the larynx. He suggested that there was more adenoid tissue in the larynx than one usually believed, and cited one particular case of laryngeal growth operated upon and examined by himself, and published and figured in the "Studies in Pathological Anatomy" by Dr. Martin and himself. There was a growth in the larynx in an adult woman having the exact appearance of a multiple papilloma. Even after removal it looked like papilloma, but under the microscope it was recognized to be lymphomatous in structure. It had recurred, however, for years. Papillomata of the larynx were so common that one never thought of examining the majority of them under the microscope. Possibly if they did so they would discover that at least some were lymphomata, and this would explain, too, why post-nasal adenoids were sometimes met with together with laryngeal growths;

being proliferations of lymphatic tissue in various parts, just as the association of enlarged tonsils and adenoids.

Dr. BARK mentioned a case in which he had used Dr. Dundas Grant's forceps in a similar circumstance, and he spoke highly of the ease with which he had been enabled to remove the growths at one sitting.

Dr. MACINTYRE, in reply, said that there were no post-nasal growths in his case, nor was anything of consequence found in either the nose or the throat. No other papillomatous formations were present on the skin. He agreed that Dr. Grant's forceps were extremely convenient of application, and he fully endorsed what had fallen from the previous speaker.

Dr. WOLFENDEN also added his testimony in respect of the great convenience of the forceps.

Dr. MACINTYRE read the following notes of a *Case of the Recurrent Laryngeal Nerve paralysed in a Child from its implication in Scrofulous Glands*, kindly sent him by Dr. James Finlayson, of Glasgow.

Dr. MACINTYRE said the interest in this case lay in one point particularly, viz., the age of the child; but that was not all of importance in a case such as this. Recently a good deal had been written about laryngeal paralysis, and it was extremely important to have correct observations, particularly with *post-mortem* records. While the cough in this child seemed to be so striking as to immediately call the attention of such a careful and experienced clinical observer as Dr. James Finlayson to it, still in a more or less degree it was not unlikely interference with the recurrent laryngeal nerve in children took place oftener than they thought. Dr. Finlayson's notes are as follow :—

Paralysis of the recurrent laryngeal nerve has long been well known to occur in cases of aneurismal and other thoracic tumours. The implication of this nerve from the pressure of bronchial glands, and from lesions of the pleura and pericardium, have also been often reported in adult patients. One such case came under my own observation, where the laryngeal paralysis with other symptoms had led me into the erroneous diagnosis of an aneurism. The pathological changes in the glands likely to lead to implication of this nerve in childhood seem to have been early recognized, and even insisted on; but since the precision of laryngoscopic examination has been possible very little seems to have been done in clearing up this matter; so at least Gerhardt says. I have looked over the volumes of the "Internat. Centralblatt für Laryngologie," and although many cases of recurrent nerve paralysis are recorded, and many of those noted are due to disease of the bronchial glands, pleura, etc., I could not see a single case described as occurring in children. Gerhardt, indeed, speaks of vocal cord paralysis in children being ascribed to bronchitis, leading to implications of the glands; but these cases seem to have been either bilateral in character or comparatively slight in degree, and so different from the conditions referred to here.

On visiting the Children's Hospital on May 2nd, I was astonished to hear a peculiar cough, such as I had never heard in a child. On enquiring who had coughed, a child of four and a half years was pointed

out, and I found that this child had just been admitted that day. The cough resembled the most extreme form of the hoarse cough such as we meet with in aneurismal disease leading to laryngeal paralysis. The first point was to ascertain whether there was any local disease in the larynx to account for the strange cough. Dr. Walker Downie was asked to examine the larynx next day, but no swelling, ulceration, or disease of the mucous membrane was present. There was, however, paralysis of the left cord as regards abduction, so that it remained fixed near the middle line, while the right moved freely.

This cleared the way for the diagnosis. The symptoms and physical signs pointed to consolidation and softening from phthisical disease in the left lung in particular; and the absence of any tubercular disease in the larynx seemed to me to make it very certain that the case was one of the class referred to where implication of the recurrent laryngeal nerve had been brought about by the pressure of glands or the melting of pleuritic adhesion. The child was extremely rickety, and the family history was highly tubercular. A sister of the patient, also rickety, had died in our hospital shortly before, and at the *post-mortem* examination in her case, in addition to tubercular meningitis, there were caseous bronchial glands, and caseous masses in the lung. Another child was said to have died of some brain disease, and other three children were said to have died of "decline in the bowels."

The peculiar cough continued in our little patient, and she gave utterance to curious hoarse whining cries when wishing anything. She spoke very little while in the ward, but the voice was not specially hoarse. The temperature was at times high, but extremely low temperatures were also frequently found, even when taken carefully in the rectum, 95°, 96°, 97°. She died in May.

Only once, on May 13th, were fluids returned by the nostrils. No tests for anaesthesia were applied; but it was noticed that the irritation of the laryngeal mirror was remarkably well borne.

The illness of the patient was traced back, as regards a cough, to a fortnight before the new year, and she was taken to the out-patient department on January 31st, and had been prescribed for there. The *post-mortem* examination was made on May 16th, 1893, by Dr. Joseph Coats.

Summary.—Phthisis pulmonalis; caseating bronchial glands, involving the left recurrent nerve. Peritonitis (tubercular) with glueing of liver, stomach, and spleen.

Chest.—The right lung is adherent posteriorly. It presents on section numerous considerable caseating areas. The left lung is firmly adherent posteriorly, and especially at base. This lung is almost entirely solidified, the solidification being due in part to an oedematous and partially consolidated condition, and in part to dense caseous areas. The latter are of various size, from small spots in the grey tissue up to an extensive solid infiltration, the largest example of which is at the lower edge of lung posteriorly, where a wedge-shaped area about one and a half inches in diameter is continuously caseous. Tracing the left pneumogastric, it becomes adherent to a much enlarged and caseating

gland, but can be traced down without much apparent alteration of structure to the level of the root of the lung. The adhesion begins just above the origin of the recurrent nerve. This nerve is intimately connected with and involved in caseating glands, almost from its origin, so that it is with difficulty traced round the aorta. It appears to be spread out, and its substance involved in the infiltration. The larynx presents nothing remarkable.

The pericardium is completely adherent, and the visceral layer is almost continuously beset with yellow tubercles. Between the visceral and parietal layers there is a partly organized tissue; the parietal layer presents small white tubercles which are scarcely at all caseous.

Abdomen.—There are also extensive adhesions of peritoneum and omentum.

Brain.—Presented nothing very remarkable, but it was preserved in fluid for hardening and further examination.

Dr. GRANT referred to an interesting case published by Dr. Robertson, of Newcastle, in the JOURNAL OF LARYNGOLOGY, who diagnosed posticus paralysis. The symptoms were suggestive of spasm of the adductors rather than paralysis of the abductors. The conclusions formulated by the author would add to the probability of the correctness of his diagnosis. This is a point they ought to bear in mind, especially in examining children, in whom laryngoscopic examination was sometimes difficult.

Dr. MACINTYRE.—*Malignant Disease of the Tonsils.*

(A) *Primary Epithelioma of the Tonsils.*

A considerable amount of attention is now being paid to these diseases in the region of the tonsils, and whereas a few years ago it was considered very rare, a sufficient record of cases has now been obtained to show the necessity for careful examination of these organs with a view to the early detection of malignant disease. During the past ten years I have had twelve cases of primary malignant disease of the tonsils and others secondary under my care, details of which may be given in some future paper. My object, however, at present is not to give a complete list of these, but to refer to two, the one of epithelioma and the other of sarcoma, in which some points of interest are to be noted.

J. A., aged sixty, residing in Forres, was sent to me on September 18th, 1891. The patient complained of pain on the right side of the throat darting to the ear. He stated that he had been troubled with his throat for some months. His general appearance was very good. His past history did not bear upon the case; he had, however, been somewhat intemperate in his habits. The family history revealed nothing of interest. An examination of the nostrils showed evidence of old-standing rhinitis, but not to an extent to give any trouble. The only thing to be seen of any consequence was a small tumour situated at the lower end of the anterior pillar of the fauces on the right side. The pillar had been adherent to the tonsil from old, and probably very early, inflammatory mischief. The disease was infiltrating the lower half of the tonsil, and there was also a slight infiltration of the small lax band of mucous membrane where the covering of the pillar joins that of the dorsum of

the tongue. The tumour was hard, the surface broken, and the edges of the ulcer very hard. At the time of examination there was a little haemorrhage, evidently coming from a cleft in the centre of the tumour. The position and appearance of the tumour suggested malignant disease of the tonsil and anterior pillar of the fauces. There was nothing wrong with the voice; respiration was normal, and the heart's action was very good for a man of his years; smell, taste, and hearing were normal; there was no involvement, however, of the lymphatics as far as external and internal examination could reveal.

The patient was taken into the Glasgow Training Home on 21st September, and put under ether by Dr. Brown Henderson. The late Dr. Dick, of Glasgow, his medical attendant, assisted me. When the mouth was opened with the gag and the tongue drawn forward, it was quite easily seen that the tumour was limited to the pillar of the fauces and the tonsil. With a pair of curved scissors the mucous membrane was wholly removed from that side of the tongue clear of the disease. The anterior pillar of the fauces was then removed with the knife, and the whole tonsil also carefully excised. The haemorrhage was easily commanded, and the patient made a most satisfactory recovery. He was dismissed from the home twelve days after the operation. Microscopic examination of the tumour showed that we were dealing with an epithelioma of the tonsil. The patient visited me this year; he is now in perfectly good health, and has not experienced the slightest pain since the operation. The cicatrix which represents the parts originally removed is perfectly healthy, and there is not the slightest evidence of recurrence.

(B) *Sarcoma of the Tonsils.*

Mrs. M., aged fifty-eight, was sent to me by Dr. Macdonald, of Glasgow, on 1st September, 1892. Examination of the upper respiratory tract showed there was a tumour of the left tonsil, which had encroached upon the anterior and posterior pillars of the fauces; it had also extended to the dorsum of the tongue. The whole tumour was of the size of a cherry. It had evidently been encapsulated, hard to touch, and there was no infiltration of the lymphatic glands. The patient's complaint was slight pain in swallowing. The respiratory and cardiac systems were practically normal; smell, taste, and hearing were also unaffected. There was slight ulceration of the surface, which was somewhat nodually irregular.

She was admitted to Ward 18 on 10th September, and it was decided at a consultation to remove the tumour, as there was little doubt that we were dealing with a sarcoma of the tonsil. On the 24th the patient was put under chloroform, and, with the assistance of Dr. Pringle, of the Royal Infirmary, I removed the growth. Both anterior and posterior pillars of the fauces were removed. The tonsil was also completely removed, and the mucous membrane at the side of the tongue cleared away, well beyond the area of infection. The patient did fairly well. On the second night after the operation there was a pretty severe haemorrhage, which the house-surgeon controlled. With this exception, she made a very satisfactory recovery, and was dismissed from the hospital on 11th October, well. The patient visited me for three months afterwards, and

nothing could be detected by way of recurrence. On 1st May of this year, however, the patient was admitted to the female throat ward in the Glasgow Royal Infirmary, complaining of pain in swallowing. She stated that about two months previously she had noticed a swelling in the right tonsil. The house-surgeon, who reported the case, states that the right tonsil was then seen to be enlarged, and covered with patches of dirty creamy-like matter. The tumour was firm in consistence, and entirely involved the tonsil. The glands in the neck were largely affected, and it was quite evident the patient was now suffering from a rapidly growing tumour, which had invaded the system, and which was far too extensive to be removed. The patient stated that she would have come to the hospital, but was afraid of another operation, and this explains the interval between my seeing her and her re-admittance to the ward. The tumour at the time of admittance had, and even now has, no connection with the other side. There is not the slightest reappearance on the left side where the first tumour was removed. A portion of the tonsil, which was hanging loose in the throat, was removed and given to Dr. Lindsay Steven for report. This pathologist reported : "The specimen consists of two portions of tissue, the larger about the size of a small bean. They are soft, white, and irregular in shape. Sections have been cut by embedding in collodion, and stained in toxin and haematoxylin. The whole structure is composed of closely-set small round cells, without any definite stroma, and, on the whole, the histological appearance will justify the diagnosis of small round-celled sarcoma. The corpuscles are, upon the whole, smaller and more closely packed together than one would expect in simple inflammatory tissue."

This histological examination is exactly the same as that of the original tumour from which she suffered at the time of her first admission to the hospital.

It is interesting to note in connection with these two cases that where the disease was removed at an early date there was no recurrence. Of late I have taken great care in teaching to instruct students about the necessity of making careful examination of the side of the tongue and its junction with the anterior pillar of the fauces in all cases.

In a considerable number of instances during the past year I have noticed excoriations and fissures in this region, and I now make it a rule to remove all such as speedily as possible. In one such case removed, where the swelling was not above the size of a split-pea, the histological examination gave clear indications of epithelioma. We know that while primary malignant disease of the tonsil has been regarded as comparatively rare, on the other hand epithelioma of the tongue often involved the tonsils secondarily. We further know that the angle between the fauces and tongue is a very common seat for this disease to make its appearance. It is not at all improbable that early detection of malignant disease in this direction, where it involves the fauces or tonsils only and before glandular infection, might, if detected early enough, be as successfully removed as epithelioma of the lip.

Dr. GRANT insisted upon the amount that could be done by the mouth without recourse to external pharyngotomy, to which certain surgeons

were so much addicted, especially when associated with ligature of the external carotid.

Mr. MAYO COLLIER referred in terms of adulation to the diagnostic and operative dexterity of Dr. Macintyre. It was highly important to make an early diagnosis of these cases, because the study of the anatomy of the tonsil showed that if the disease was far advanced, no operation could do much good. He had himself investigated the relations of the tonsil. There was hardly any organ in the body so completely isolated anatomically. He pointed out that the membrane, which he had demonstrated and described as the hyo-epiglottic membrane, itself a portion of the pharyngeal aponeurosis, and a thick membrane lining and backing up the front of the epiglottis, spread out on either side and lined the cavity of the tonsil. The lymphatics of the tonsil pierced this membrane directly and passed to the deep glands internal to the common carotid artery. Therefore the absence of enlarged glands at the angle of the jaw was no evidence that the glands were not involved. The tonsil, however, was so beautifully situated for the removal of a small portion for microscopical examination that it was desirable in every case to remove a piece and make a thorough examination, when, if thought desirable, the tonsil might be completely enucleated. This was a very easy operation and involved, practically, no danger.

Dr. MACINTYRE, in reply, said he had made several dissections of the neck in cases in which no enlarged glands had been discovered, but as soon as they got below the skin a large number of enlarged glands were laid bare. In malignant disease of the side of the throat and tongue, malignant disease of the tonsil was often met with as a secondary consequence. They were all aware of the fact that in many cases of enlarged tonsils one was very apt to remove part of the pillars of the fauces with the guillotine, and for that reason he was dissatisfied with the guillotine, which did not allow of complete removal. He had seen cases of apparently complete removal in which recurrence had taken place, which he attributed to the fact that the ends of the *cult-de-sac* were often left.

Dr. WOLFENDEN.—Sequel of a Case of Sarcoma of the Tonsil.

This case first came under his care in June, 1889. The tonsil was extirpated as completely as possible with the galvano-cautery snare. Examination of the growth proved it to be a small round-celled sarcoma. Two years later, in 1891, she came a second time complaining of a recurrence of the growth. Twelve months after the operation she said the tonsil had begun to grow again. The pain was not very severe, but was worse on swallowing. The tonsil was smooth, hard, and of a dusky colour. The glands at the angle of the jaw were slightly enlarged. On July 3rd she had several attacks of fainting, and her condition seemed critical. On July 30th the upper part of the tonsil was removed with the cold wire snare with very little loss of blood, and she was soon able to return home. He did not think she would live more than a few months, but to his surprise he heard this summer that she was quite well, better in fact than she had ever been in her life, though it is now four years since she first came under treatment.

The case is interesting inasmuch as it is very rare to find patients with sarcoma of the tonsil surviving more than a year the operation or after the recognition of the disease. It seemed to him particularly desirable that practitioners should be careful to furnish the subsequent history of their cases, with special reference to whether the operation was undertaken by the mouth or otherwise.

The PRESIDENT asked whether any glands had been removed.

Dr. WOLFENDEN replied in the negative. All had been removed that could be got at with the galvano-cautery snare, from the inside of the mouth. The operation was performed more as a palliative measure, because the glands in the neck were obviously enlarged, and this seemed to class the case as one without hope of benefit from a severe operation.

Mr. WINGRAVE said that if they had reached the stage of ulceration they would naturally expect to find enlarged glands. After ulceration it was possible that the glands might be the seat of a purely inflammatory enlargement as the result of septic irritation. It did, however, occur, though rarely, that glands might become enlarged before ulceration had set in, even in epitheliomata.

Dr. WOLFENDEN pointed out that ulceration was infrequent in sarcoma, yet the glands were usually enlarged. He had seen several cases in which there had been no ulceration.

Mr. COLLIER traversed Mr. Wingrave's statement as to ulceration being a preliminary to enlargement of the glands. He pointed out that in patients with cancer of the breast, long before the ulcerative stage the axillary glands might be enlarged. When ulceration supervened then, of course, in addition to the cancerous infection, there might be further enlargement due to septic irritation.

Mr. WINGRAVE explained that he had not intended to convey that ulceration was absolutely necessary for the production of enlargement of the glands, but he thought that in undoubtedly malignant cases in which no enlarged glands were discoverable their absence was due to the fact that there was no ulceration. He had seen this in cases of early epithelioma of the larynx, the glands enlarging as soon as ulceration had commenced, although containing no epithelial nests, and it was to this form of neoplasm that he particularly referred.

Mr. COLLIER said he remembered two such cases in which the patients came complaining only of enlargement of the glands of the neck outside of the larynx, and a slightly husky voice.

Dr. DUNDAS GRANT.—Further notes of a *Case of Sub-mucous Hemorrhage into the Vocal Cord, with Neoplasm.*

Many of the fellows will, no doubt, remember my bringing before the Association at the meeting on December 9th of last year a young lady who was subject to recurrent attacks of sudden aphonia followed by hoarseness, taking about a fortnight for gradual subsidence. On the first examination, immediately after the occurrence, the left vocal cord presented the appearance of a large clot, moving up and down with the movements of the cord, but not dislodged by coughing or manipulation. A few days later it was found that the apparent source of origin was a

vascular tumour seated at the junction of the anterior and middle thirds of the cord, the ecchymosis tailing off from it in both directions. In course of time the haemorrhage was almost completely absorbed, leaving the neoplasm in bold relief. For some time I made applications of chloride of zinc twice or thrice a week, and the recurrence of haemorrhage was kept in abeyance. I recently removed the growth by means of my safety endo-laryngeal forceps, leaving a very small stump—the base was a broad one—to which I have since applied chloride of zinc. The voice has since become much stronger and clearer both for speaking and singing. The young lady assures me that there is quite a difference in the range, which has extended upwards, whereas in the downward direction it has become more restricted than before.

I have now not seen her for three weeks, but at that time the irregularity and congestion of the cord was quite inconsiderable. I regret that, owing to an error, the growth was so badly preserved that a proper microscopical section could not be made.

Dr. WOLFENDEN observed that the case was one that might easily have been mistaken for what was described as haemorrhagic laryngitis. He presumed the haemorrhage was due to the bursting of an angioma.

Dr. GRANT regretted that owing to an error in the preservation of the specimen he was unable to show microscopical sections.

Dr. MILLIGAN.—*A Case of Pachydermia Laryngis.* (See p. 370).

Mr. MAYO COLLIER recalled a case described by him as one of flat papilloma occurring in a soldier. Possibly this was a case of pachydermia laryngis. There were large flat growths. The man had had syphilis, the growths were symmetrical, and he attributed them to gummatæ.

Dr. WOLFENDEN observed that the diagnosis of pachydermia laryngis was one of the things which were most difficult. Many cases formerly described as trachoma were possibly cases of pachydermia. It was not apparently a common disorder in this country.

Dr. DUNDAS GRANT said he had seen what was considered a very typical case, and the enlargement in the region of the vocal process was enormous, like a shirt button, and there was a deep depression on one cord into which the other seemed to fit. He thought he had seen two such cases in hospital practice, but the typical disease was certainly uncommon in London, though it was frequent in Germany. A French writer had described two cases of the kind, curiously enough both occurring in Germans, though this might be a mere coincidence.

Dr. MILLIGAN, in reply, admitted that so long a name was perhaps out of place, but he thought the case tallied so closely with the description in certain German periodicals that it seemed worthy of notice. His patient was certainly younger than those in whom this affection had so far been met with. He had no other name to give to the affection he had just described. The depression which existed was upon the edge rather than on the surface of the swelling.

The PRESIDENT, in taking leave of the fellows, expressed his sense of gratitude to them for the courtesy and kindness with which they had assisted him to discharge his duties as president. He alluded to the

importance and wide range of the work done by the Association during his term of office, and said that the work afforded ample evidence—if any were needed—of the success of the Association. He observed that not so many years ago the project to form a special society of laryngology had been scouted by surgeons generally, but, in spite of opposition, their Association had not only proved highly successful, but a sister society, having more local aims, had also been instituted, which he wished every success.

A discussion on the Clinical and Pathological Constants of Atrophic Rhinitis, introduced by Mr. WYATT WINGRAVE, was postponed owing to the lateness of the hour.

The following microscopical specimens were exhibited by Mr. WYATT WINGRAVE—

- (1) Nasal Lupus,
- (2) Atrophic Rhinitis.
- (3) Suppurative Ethmoiditis.

New instruments were shown by the HON. SECRETARY, from Messrs. Krohne, Mayer and Meltzer, Down, Schall, etc.

**THE SOCIETY OF LARYNGOLOGY, OTOLOGY, AND RHINOLOGY
OF PARIS.**

Meeting, April 7, 1893.

Dr. GELLÉ. *Empyema of the Maxillary Sinus consecutive to Complete Tamponing of the Left Nasal Fossa.*

Some months ago the author read before the Society some observations upon suppurative otitis following upon tamponing of the posterior nasal fossæ. At the time certain speakers were of the opinion that this complication was rare after operations upon the nasal fossæ, and was due to the method of performing the tamponing. A new case is recorded of a patient, aged sixty, who required, some years ago, posterior tamponing for rebellious epistaxis. In 1888 an epistaxis from the left naris occurred, resisting all measures, only checked by tamponing the whole extent of the nasal cavity. The patient refused to have the tampon removed until the tenth day, being annoyed by the evil smell. That evening fever and shivering occurred. The tampon was pushed into the throat and antiseptic washes were ordered. Fever disappeared, but a muco-purulent and fetid discharge was abundant for about a month. Some time after, sharp pains of the left side of the face, with sub-orbital and orbital neuralgia occurred, increase of fever, swelling of the left cheek and œdema of the eyelid, and insensibility to pressure. The sanguous fetid discharge became more abundant. This continued for eight days, the patient refusing all treatment for fear of a return of haemorrhage. Afterwards energetic washing of the left naris removed an intensely fetid plug, grey, sanguous, and soft, and with it a flow of putrid liquid. The

symptoms then gradually subsided, but a foetid discharge continued from the left naris and existed a year afterwards.

Dr. HERMET asked if there had been alveolo-dental periostitis.

Dr. GELLÉ replied that there was none.

Dr. HERMET asked if the patient had been made to lie on the stomach with hanging head to determine the rhinorrhœa.

Dr. GELLÉ replied that he had not.

Dr. CHATELLIER remarked that this case confirmed the opinion that anterior and posterior tamponing ought only exceptionally to be practised, and with rigorous antiseptic precautions. Haemorrhages most often occur at the anterior part of the septum, and when their cause is rather medical than surgical they should not be treated by tamponing.

Dr. GOUGUENHEIM said that evidently tamponing ought to be antiseptic, and a tampon should only be left *in situ* for twenty-four hours. But it is necessary to state that all epistaxes do not occur at the anterior part of the nasal fossæ; some occur from the posterior region, and for these tamponing is indicated, not with Bellocq's sound, but with a soft sound.

Dr. HENRI CHATELLIER.—*The Treatment of Eczema of the Ear.*

After an experience of six years the remedy which has given the greatest satisfaction is iodol in impalpable powder. The mode of use varies with the character and seat of the disease.

1. Moist Eczema.—This may be generalized and confluent on the auricle or in the retro-auricular fold, or it may be in the meatus, as is seen frequently after the treatment of suppurative median otitis by means of powdered boracic acid. The part is washed with Van Swieten's liquor, mixed with from three to four times its volume of warm water (equal to a solution of one part of corrosive sublimate to three thousand or four thousand of water), and dried with absorbent wool. It is then well sprinkled with iodol powder, with which the meatus is filled, and the whole is covered with absorbent wool. This is repeated night and morning till recovery, which usually takes place in from one to eight days.

2. Dry Eczema.

(a) *On the Auricle and neighbouring external parts.*—The parts are washed, as in the other case, dried, and then covered with an ointment of one part of iodol to thirty of lanoline. It is well to cover them with a sheet of cotton-wool, and they should be dressed night and morning.

(b) *In the Meatus.*—The meatus must be syringed out with the lotion as before, and dried with a pellet of cotton-wool. The head must then be bent over to the opposite side, and the meatus filled with a mixture of one part of iodol in thirty of paraffin oil, well shaken up. This should be retained by means of a plug of cotton-wool. This is repeated night and morning for a fortnight, when the eczema is cured. The ear is then carefully syringed out to remove all excess of medicament, and all treatment is then discarded.

Dr. HERMET got the best results from the application of a concentrated solution of nitrate of silver on a tampon after a thorough syringing with warm water.

Dr. CHATELLIER objected to nitrate of silver on large surfaces on account of the pain produced.

Dr. GELLÉ attached great importance to general treatment.

Dr. LOEWENBERG never saw eczema result from the use of boracic acid.

Dr. MÉNIÈRE was not in favour of the use of powders in the treatment of aural suppuration. He preferred strong solution of carbolic acid in glycerine (from one in ten to one in one), and had recently made trial of pheno-saly.

A Case-Paper for Aural Diseases. By Dr. GELLÉ.

The author has drawn up the following form, with diagrams, showing the membrana tympani, and—as if through transparent walls—the attic and the antrum.

Diagnosis:

	Examination.			Right.	Left.
HEARING POWER.					
Conversation (distance)
Whispered Voice (distance)
Vowels, Shouts, &c.
Effect of Surrounding Noise
Hearing for Tuning-Fork A
" " " A
" " " A
Whistle, Cornet (?), Acoustic Tube
Hearing for the Watch, Contact
" " " Apart from the Ear
" " " Cranial Perception
Audiphone, Conversation
" " Tuning-Fork
Cranial Perception,* Tuning-Fork on the Vertex
" " Central or Lateralized on Forehead †

• Early Conduction

† Weber's Test

Examination.	Right.	Left.
HEARING POWER—continued.		
Cranial Perception, On Mastoid		
On Nose or Teeth		
Tuning-Fork, Perception on the Vertex, modified by		
Deglutition		
For the Observer		
" " For the Patient		
Dictation		
Relative Hearing for Watch, for Speech, and for the		
Tuning-Fork		
Hearing of "Beats" from two Discordant Tuning-Forks...		
Hearing of two Consecutive Sounds...		
Autophony		
Persistent Sound		
Hyperacusis		
Paracusis (False Ear)		
Tuning-Fork after Extinction on Vertex, placed opposite		
the Meatus* (and <i>vice versa</i>)		
Tuning-Fork on Vertex compared with Air-Conduction ...		
Tuning-Fork Sound diverted by Stopping the Meatus ...		
Tuning-Fork or Watch in Contact with a Binaural Tube...		
Bone-Conduction modified by Valsalva's Experiment ...		
" " Toynbee's " ...		
" " Politzer's " ...		
" Catheter ...		
Duration of Sonorous Excitation necessary for Audition.		
Tuning-Fork or Watch passed more or less rapidly		
opposite the Ear		
Curves of Audition		
Auto-Examination, with the Tuning-Fork free at the		
Extremity of the Otoscope		
AUSCULTATION.		
Tympanic Click		
Deglutition "		
Valsalva "		
Toynbee "		
Politzer "		
Catheter "		
Tubal Souffle		
Perforation "		
Gurgling "		
Surrounding Noise. Leudet's Bruit		
Transauricular Auscultation (before and after Politzer) ..		
INSPECTION.		
Auricle. Auricular Furrow		
Lobule		
Tragus (Gland)...		
Mastoid Region		
Vascular Furrow in the Neck...		
External Meatus		
" " Orifice		
" " Walls		
" " Contents		

* Rinne's Experiment.

	Examination.	Right.	Left.
INSPECTION—continued.			
External Meatus, Osseous Part
" " Wall of Attic
" " Mastoid Wall
" " Facial Nerve
TYMPANUM.			
Appearance before Inflation
after	“
Flaccid Portion
Supero-Posterior Quadrant
Manubrium
Short Process
Bands
Posterior Fold
Umbo, Light-Cone
Translucency
Deformities
Concavity
Perforations
View through the Membrane
Mobility on Inspection : Siegle
" " Politzer
" " Toynbee
Cavity of the Tympanum
" " Appearance, Fundus, Contents
" " Ossicles
" " Mastoid Hiatus
" " Aeration, Gurgling
Politzer. Air-bubbles, Pus
" " Pulsations
" " Endoscopic Pulsations
" " Aspiration of Pus : Siegle
Examination with Curved Probe
" " Mobility of Ossicles
" " Barc Bone
" " Granulations, Polypi
Stapes. Mobility.
" " By Binaural Synergy
" " By Centripetal Pressure
" " By the Probe
EUSTACHIAN TUBES.			
Permeability by means of Otoscope
" " Endoscope
" " Inspection of Tympanum
" " Tuning-Fork
" " Modification
" " Transauricular Audition
Politzer and Cocaine, Application
Impermeability. Cathe'r, Bougie (Trans-Catheter)
" " Filtrin Gum-Elastic Catheter
" " Rhinoscopy of Pharyngeal Orifice
" " Probe (Tympanic Orifice)
SUBJETIVE SYMPTOMS.			
Pain. Otolgia
Periodic Pain
Cruralgia

	Examination.		Right.	Left.
SUBJECTIVE SYMPTOMS— <i>continued.</i>				
Migraine
Painful Hearing
Noises in the Ear
,,	Spontaneous.	Leudet's Murmur	...	...
,,	Provoked	...	...	...
Vertiginous Attacks
Vomiting, Nausea
Syncope
Vertiginous State (Labyrinthism)
Mental Disturbances
Gustatory
Progressional	”
Visual	”
Facial Paralysis
Facial Neuralgia
Torticollis
Dental Caries...
BUCCAL PHARYNX.				
Tonsils
Velum, Uvula, Pillars...
Posterior Wall
Lateral Walls
Deglutition
Tongue
NOSTRILS—NOSE.				
Vestibule
Anosmia, Parosmia
Secretion, Exudations..
Septum
Turbinals.	Middle	...	...	...
”	Inferior	...	...	...
Choanæ
Nasal Respiration
”	After Cocaine	...	...	...
Permeability (Graduated Sound)
Voice
Nasal Mucous Membrane
Contents of Nasal Passages
Odour of Expired Air
Cavity of Naso-Pharynx
”	Posterior Rhinoscopy	...	...	...
”	Digital Palpation	...	...	...
Probe, Catheter, Nasal Injections
Palate Retraction
Tubal Orifice. Palpation, Rhinoscopy
Pharyngeal Bursa
Adenoid Tumours
Hypertrophied Ends of Turbins
Reflex Disturbances
Sneezing
Tic
Asthma

NOTE.

DR. JOHN SENDZIAK, of Warsaw, has been awarded the prize of one thousand francs and a gold medal, offered by the Société de Médecine, Chirurgie et Pharmacie de Toulouse, 1892-1893, for the best essay upon the subject, "Des Tumeurs Malignes du Larynx et de leurs traitement."

CORRECTION.

ON page 317, line 22, of Dr. Lichtwitz's article on "The Employment of Accumulators in Medicine and the best means of charging them," in the last number of this Journal, the expression "conductors of 3 or 4 millampères" should read "conductors of 3 or 4 millimetres."

AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

THE Third Annual Meeting of the American Electro-Therapeutic Association will be held in Chicago, September 12th, 13th, and 14th, at Apollo Hall, Central Music Hall Block.

Members of the medical profession interested in electro-therapeutics are cordially invited to attend.

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**RESULTS OF THE SURGICAL TREATMENT OF
LARYNGEAL PHTHISIS, based on 252 Cases.**

By Dr. THEODOR HERYNG, Warsaw.

(Continued from p. 370.)

I NOW wish to meet the objection raised by Professor Schrötter in his papers on laryngeal phthisis, that with the curette we are not always able to remove all the tubercular deposits so as to prevent relapse. This will greatly depend on the selection of cases and the localization of the disease, for there are certainly parts which cannot be reached *per vias naturales*. Under such circumstances the treatment ought not to be surgical, or the result will be partial and temporary, and thus there will be an improvement only of certain symptoms, and even that must not always be looked for. But to allow the process of destruction to advance is by no means the same thing as, to attempt at least, to localize or check it.

Curettetment is indicated, according to my past experience, above all in cases of circumscribed, slowly-developing tubercular infiltrations, even although they show no tendency to break down. The object of the operation here is to prevent the further inevitable destruction of a vital organ by destroying the centre of infection.

Even somewhat advanced lung disease and a certain degree of fever, so long as it is not of a hectic character, cannot in certain cases be regarded as contra-indications, but, I repeat emphatically, only in certain cases.

If the tubercular infiltration is confined to the posterior wall of the larynx, as is most frequently the case, then an early and as radical as possible removal of this can bring the process to a standstill for months and years, and restore the functions of the larynx.

But we shall find indications for surgical measures in many diffuse processes in the larynx, which run their course with special violence, and even when the general condition is relatively unfavourable, e.g., in excessive dysphagia, due to inflammatory swelling and ulceration of the epiglottis or posterior wall of the larynx. We are perfectly aware that healing cannot take place here, but the indications for treatment are based on the fact that by means of energetic, well-conducted surgical procedure the pain can be alleviated in the quickest manner possible for a considerable time, and certainly to the poor sufferers this is no trifle. When cocaine proves ineffectual, the surgical treatment often takes its place. Every patient will not consent to this being carried out; it will be allowed only by those who are energetic, and prefer momentary pain to lingering distress.

Krause very rightly says: "The consumptive is a person who is "wonderfully influenced by the ability and energy of his physician, and "is perfectly willing to have his imagination and will acted upon, so that "we are able at any moment to lead him to our way of thinking. Doing "this, and showing him our devotion and affection, we thus win him over, "so that without further hesitation he submits to serious operations."

I wish to state explicitly that the surgical treatment should certainly not be undertaken by one unpractised in laryngological manipulations, for if badly carried out harm may even result—a disadvantage which it shares with all other vigorous procedures. This cannot, however, detract from its value more than can the bigoted opinion of some colleagues, who, having no expérience in the matter, attempt to estimate, or, rather, to condemn it, from a theoretical standpoint.

It is contra-indicated in persons who are much depressed, with the system run down, and lacking determination; in weak patients with high fever, who are almost frightened out of their wits by a few streaks of blood in the sputum, and regard with terrified gaze every instrument the surgeon takes into his hand; also in those who are not sufficiently accustomed to the mirror and laryngeal instruments. We would also avoid this treatment in nervous, impatient, mistrustful persons, who change their doctor frequently, expect immediate improvement, and wish to be treated as out-door patients; or whenever we have reason to anticipate that their occupation or character would prevent them from taking care of their health, obeying the doctor's orders, or thoroughly carrying out the treatment, which is always tedious, and in advanced cases often unsuccessful.

It demands a certain amount of manipulative ability, and perhaps will not become the common property of all specialists. I have never over-estimated the *technique*, and I fully agree with Jonquière when he says: "It has never been a deficiency in *technique* which has impeded "the progress of the human race. This is soon overcome, and the most "astonishing dexterity is easily attained. It is the intelligent attainment "of well-grounded views which must prepare the way for the skilful "hand. Thus was it also with the therapeutics of laryngeal tuberculosis."

I would still like to quote some passages from Eugen Fraenkel's paper, because, based as they are on detailed anatomical and microscopic

investigation, they fully justify the surgical treatment. He writes as follows (*op. cit.*, p. 543) : "I may sum up the matter thus—the tubercular "changes in the larynx are to be referred to an invasion of bacilli from "the surface, and although it is conceivable that the opposite path may "be taken—Koch's bacillus escaping from the blood-vessels or lymphatics "and penetrating from within—still it forms the exception. The bacilli "pass into the deeper layers of the tissue, through the epithelial cells, "which are either perfectly intact or are altered in quality, particularly "as regards their cohesion. Another, although extremely unusual path, "is that which was observed by Heryng. It likewise presents a mode of "infection of the larynx from the surface, the tubercular bacilli entering "the epithelium of the excretory ducts of the mucous glands."

At the end of his work Eugen Fraenkel describes the therapeutics of laryngeal phthisis in the following words : "If, in concluding these statements, I take the liberty of entering briefly into the question of the treatment of laryngeal consumption, it is because of late considerable attention has been directed to this subject, and, in consequence, views are now held which differ very materially from those which until recently were generally recognized as authoritative. For, until a few years ago, being under the ban of the doctrine of the incurability of laryngeal phthisis, which for long had been in the ascendant, we maintained on the whole a passive attitude towards patients afflicted with this severe disease, and confined ourselves to symptomatic treatment, especially of the pain. We are chiefly indebted to Heryng's energetic and well-designed proceeding, whereby the way has gradually been prepared for the belief that active therapeutics, and especially suitable surgical means, can favourably influence these incurable processes, bring them to a standstill, and even heal them. I think I have proved that such measures are quite justifiable by my researches which are here recorded, for they have confirmed the correctness of the view held by many authors, even in the pre-bacillary period, as to the origin of laryngeal consumption by the entrance of the virus from the surface, and now, in the light of Koch's discovery, the evidence appears to me indisputable. The object of the methods proposed by Heryng and his supporters is merely to follow step by step the exciting cause of the disease which has penetrated from without, and either to directly remove the resulting diseased products in the tissues, or, by introducing medicated substances, to influence them so that a destruction of the injurious agent is effected. When an affection of the larynx has been recognized as tubercular, and especially if in its first stages, we are thus nowadays in duty bound to proceed as energetically as we can in order to limit when possible the disease to its starting-point. I have already declared that this principle must find its application in a higher degree in those cases which assuredly do occur, although rarely, of primary tubercular disease of the larynx, and I desire to take this opportunity of giving renewed emphasis to my views then expressed." These extracts may be commended to the attention of the opponents of the surgical method.

The success of the surgical treatment of laryngeal phthisis will depend

upon (1) the local character of the disease, its extent and nature; (2) the general condition of the patient, his nutrition and strength; (3) the anatomical character and extent of the lung affection; (4) the patient's age, constitution, occupation, social position and temperament; (5) the thoroughness of the operation itself, and this in turn depends upon the localization of the process to parts from which as radical a removal as possible of the diseased tissue is technically practicable; (6) the carefulness of the after-treatment, and—on account of the complicating lung affection—the ability to carry out consistently for a sufficient period a hygienic and dietetic regimen, and to obtain if necessary a change of climate.

In spite of taking all these points into consideration, it is exceedingly difficult to form a prognosis. Great experience is required, and even with it very often nothing definite can be expressed.

The fact is, the majority of patients with laryngeal phthisis die of pulmonary consumption, and many of the cases temporarily cured are threatened by relapse. Nevertheless, with equal certainty it may be affirmed that in rare cases complete healing of the tubercular process in the larynx, lasting for years, has been observed, and indisputable anatomical proofs raise this fact to the position of a scientific axiom; further, that partial cures in many cases continue a considerable time; that dysphagia, dysphonia, and frequently dyspnoea can be removed by surgical measures, and that now we are not so helpless in these dangerous conditions as formerly.

THE RESULTS OF THE SURGICAL TREATMENT FROM 1887 TO 1893.

In my work published in 1887 "On the Curability of Laryngeal Phthisis and its Surgical Treatment," I described twenty-eight cases of phthisis in which both larynx and lungs were involved, and in a paper published in 1890, in Polish,¹ I reported their further progress.

From these sources, and from the communication which I read in the Laryngological Section of the Tenth International Medical Congress in Berlin², I borrow the following details:—

Of the twenty-eight cases published in 1887, by July, 1890, twelve had died, while the fate of ten was unknown to me. As for the others, who survived till 1890 and remained under observation, one is to-day alive, viz., Frau Goldschall, who was demonstrated to the members of the Laryngological Section of the Congress in Berlin in 1890, and whose clinical history I have already related *in extenso*; further, a second patient Frau Hilchen (Observation No. 30) was alive in 1892, at least, and I recently wrote to Dr. Dobrzycki inquiring as to her condition. Frau Goldschall has thus been cured for five and a half years, Frau Hilchen for five years. Frau Goldschall speaks with a perfectly clear voice. In spite of an attack of pleurisy last winter, and marked aggravation of the lung affection, no recurrence has taken place in the larynx. She has been repeatedly examined since then, amongst many other colleagues by Prof. Baranowski and Dr. Srebrny. Frau Hilchen, referred by Dr. Dobrzycki, was operated on by me in 1887. I found on the left vocal

¹ "Gazeta Lekarska," 1890.

² "Berl. Klin. Wochenschr.," No. 37, 1890.

cord a partially healed tubercular ulceration, at the edge of which a granulation had developed. The general condition of the patient was relatively good, and her strength satisfactory. The tumour was removed with sharp forceps, the base of the ulcer scraped with the curette, and perfect healing obtained.

Of the patients who succumbed before July, 1890, two cases may be here mentioned in which there was no recurrence in the larynx. The one (No. 8) died of pulmonary consumption, the other (No. 17) committed suicide. In the patients who died the healing in the larynx had been established for the following periods :—

In Frau Zaboklicka (No. 23) for 36 months.

Observation 18		" 25	"
" 17		" 24	"
" 19		" 19	"
" 14		" 16	"
" 32		" 16	"
" 16		" 12	"
" 8		" 11	"

All these patients were victims of their lung disease, with the exception of Captain Przewalski, who, on the eve of his marriage, shot himself. The complete healing in the larynx, lasting in case 23 for three years, in Cases 17 and 18 for two years, and in the others for one to one and a half years, is, I think, not accidental but rather to be ascribed to the surgical treatment employed.

From 1887 to 1st July, 1890, I had the opportunity of observing 482 patients with laryngeal phthisis. Of these, 37 were curetted, and 52 were treated chiefly with lactic acid. To the 37 I must add the 16 cases surgically treated and published in my book, so that up to July, 1890, the number of patients curetted amounted to 53.

I shall now consider the cases of phthisis of the larynx collected between 1890 and 1893, which have been treated by curettement. During these three years I saw 452 cases (185 in hospital, 267 in private practice) and curetted 159. The total number of cases of laryngeal phthisis observed by me between 1887 and the present time thus amounts to 838, of which 239 were treated surgically. If I add to this 13 which were curetted by me in 1887 in San Remo, I obtain a total of 252 cases.

Owing to the impossibility of maintaining a strict supervision of the patients, who often dislike being kept under observation for a protracted period, I have here, instead of tabulating the results, brought forward only a small number of those alive, who within the last few months have been examined by me, and in whom the healing in the larynx has been established for at least one year. Under this category come some very severe cases of diffuse infiltrations of the epiglottis, ary-epiglottic ligament, and posterior wall of the larynx, affections of the cartilages, tumour-like infiltrations of the ventricular bands, chronic tubercular chorditis, and even varieties accompanied with stenosis. Many of these patients, especially those in the hospital practice, suffered from very destructive pulmonary disease, were emaciated, more or less fevered, and nearly all had excessive dysphagia and hoarseness.

In the paper published in Polish three years ago I arranged in tables (III. and IV.) a number of new cases observed between 1887 and 1890, some of which were treated surgically, therefore by curettement (Table III), others with lactic acid alone (Table IV.), and in which healing of the laryngeal affection was obtained. There are 19 cases in Table III., and in one—Fraulein S. (Observation 3) there was cicatrization in the larynx for three years, the patient ultimately dying of pulmonary phthisis without any recurrence of the laryngeal disease. In five patients perfect healing has resulted, continuing till the present time. Of the ten cases which were treated with lactic acid, and afterwards surgically, two are alive. In one of these (No. 3), the healing in the larynx had been established for three years, when he died, in 1892, of pulmonary tuberculosis. Probably a number of the patients afflicted with severe lung disease have died. In others the larynx has remained healed, while the lung affection has made slow but steady progress. A few of the patients have not appeared again, probably because they have got on well and consider themselves cured. Thus, I found last year, in Stawuta, two of my old patients whom I had not seen for three years, and in each case the larynx was completely healed. They were then undergoing the Koumis cure with Dr. Dobrzycki, on account of their lung disease. One of these cases will be described in detail later.

The number of patients treated surgically by me will perhaps astonish many of my colleagues and excite the suspicion that the method has been too frequently employed, especially in advanced cases presenting but slight prospect of cure. As this accusation will probably be brought against me, I wish to make the following remarks in my defence.

Every humane surgeon endeavours to alleviate his patient's sufferings, and all means whereby this highly important object may be secured are indicated and justifiable. If this can be attained only by a harmless operative procedure, then, in the patient's interest, it ought to be carried out. Now, we know only too well the excruciating agony a patient with laryngeal phthisis has to endure, the distress caused by the violent paroxysms of cough which disturb his night's rest, and how he can neither eat nor drink without the greatest suffering. Morphia and cocaine sooner or later lose their effect, and, before long, exercise a prejudicial influence on the nervous system and nutrition. What other resource have we? Are we to abandon the patient to certain death from starvation, without making an attempt by surgical aid to obtain alleviation, and perhaps even healing, for a considerable time? As soon as the surgeon has come to the conclusion from his own experience that in very many cases of laryngeal phthisis improvement or cure can be obtained by surgical treatment, and has completely mastered the *technique* of the method, he is quite entitled to act energetically, although the success be only temporary, and even if after a certain time recurrence takes place, or the former troubles again return.

If these relapses are at once opposed, they are often easily overcome, and thus no time is given for a large surface to become involved. I may remind the reader of Frau Goldschall's case.

I have undertaken a surgical treatment, especially in hospital practice,

even in the more advanced cases, when there was a high degree of dysphagia, and in spite of the hopeless condition of many of the patients, because I have formed the opinion, based on a relatively large material, that this method, especially when there are infiltrations of the posterior wall of the larynx or of the epiglottis, in a short time mitigates the dysphagia, removes tension of the inflamed areas, and excites and promotes cure, although it be but partial. The patients, with very few exceptions, bear the surgical measures exceedingly well, and it has frequently been my experience that on a relapse taking place they have earnestly begged me to repeat the operation, which at the expense of so little suffering had given them so much relief. With a proper application of cocaine and perfect manipulation this proceeding causes but slight discomfort, especially if good, sharp instruments be employed.

The wounds usually heal in from ten to twenty days, without any complication, if the after-treatment is carried out carefully and with due regard to the following very important particulars:—Immediately after the operation the surface of the wound must be protected from infection and injury. Blue pyoaktanin (Merck) in one to two per cent. solution has proved in my hands an excellent antiseptic in the after-treatment. This is applied at first twice, and after a few days once, in the course of twenty-four hours. It prevents suppuration and swelling, cleanses the wound surface, and hastens cicatrization. The details of the mode of application will be fully given when the *technique* is described.

I shall now present a series of observations in which complete healing in the larynx has been established from one to five-and-a-half years, the majority of the patients having been under my supervision until quite recently. The material will be divided into groups according to the duration of the healing of the tubercular process in the larynx.

Group I.—Perfect cure of laryngeal phthisis lasting from five to six years.

Case 1: Frau Goldschall (details already given).

Case 2: Frau Hilchen " " "

Group II.—Cured for about four years.

Case 3: Sycinski (no news for a year).

Case 4: G. Lewin (examined by my assistant, Dr. Lubliner, in January, 1893).

Case 5: Kraczkowski.

Case 6: Bolewicz, Anna (examined by Dr. Lubliner in January, 1893).

Case 7: Regulski (examined in July, 1893).

Case 8: Kedrzenski (letter received in August, 1893, confirming continued cure).

Group III.—Cured for three years.

Case 9: Dr. Szczasny (letter in May, 1893, reporting perfect cure).

Case 10: Seroczynska (in June, 1893, verified the complete healing with Prof. Baranowski).

Case 11: Solominski (no communication for a year).

Group IV.—Cured for two years.

Case 12 : Dr. Thumas (letter in June, 1893, telling of continued cure).

Case 13 : Ugórski (with Prof. Baranowski, confirmed the complete healing in June, 1893).

Case 14 : Kopet (no news for a year).

Case 15 : Szulakiewicz (no news for a year).

Case 16 : Heilgehilfe (examined by Dr. Lubliner, perfect healing found).

(*To be continued.*)

A CASE OF CHRONIC OESOPHAGITIS.

By SAMUEL LODGE, Jun., M.D., Bradford, Yorks.

THE comparative rarity of the disease, together with the favourable reception of the case by the Clinical Meeting of the Bradford Medico-Chirurgical Society, have induced me to submit this report.

Mrs. P., aged twenty-four, consulted me on October 15th, 1892. She stated that for the last four years she had felt a dryness and soreness in her throat about the upper part of the gullet, but the mouth was always moist. When swallowing solids or pungent liquids, the "morsel" appeared to pass a sore spot, and, owing to increased moisture in the mouth, she was compelled often to expectorate. This state of affairs continued up to July, 1892, when after swallowing solids she experienced, in addition to symptoms mentioned above, pain over the front of the left chest which radiated towards the left scapular angle. This pain would, after swallowing anything harder than usual, remain for twenty-four hours at least, and was then only relieved by abstinence from solid food. At this time, in spite of feeling always hungry and able to digest any kind of food, she was losing flesh continuously, not daring to take solids. She could swallow solids or liquids, but not with the same readiness as formerly. No history of traumatism, syphilis, or chest affection could be elicited.

On examining the mouth and pharynx, the hard and soft palates were found studded with clear drops of mucus which could be seen oozing from the mouths of the palatal glands. In fact, the palatal mucous lining appeared to be, as the patient aptly expressed it, in "a constant state of perspiration." Clear but viscid mucus was also seen over the whole of the oro-pharyngeal membrane.

Laryngoscopically, what was visible of the laryngo-pharynx was bathed in this mucus, which had evidently to a great extent gravitated there, and which was especially well seen in the hyoid fossæ. There was no evidence of laryngeal disease.

Anterior and posterior rhinoscopy disclosed no abnormality beyond a moderate amount of hypertrophic rhinitis. Palpation of the pharynx and oesophagus gave negative results. The patient was then directed to swallow some water and afterwards some bread. The liquid caused no

discomfort ; the bread brought on the pain. In the case of the bread, deglutition was perceptibly delayed. Auscultation, beyond corroborating delayed deglutition, in the case of the bread, furnished no definite information, as the "pharyngeal sound" (*glou-glou*) obscured the "oesophageal sound."

Several of my medical friends have examined this patient at intervals, but none of them were able to detect any signs of old or present chest disease.

Diagnosis. Spasm was excluded because of constant dysphagia and the fact that liquids were swallowed with much less discomfort than solids.

Malignant disease by age, etc.

Chronic oesophagitis having been diagnosed, a bougie was not passed.

Treatment. An absolutely fluid dietary was insisted upon for a fortnight, and bismuth lozenges were prescribed. After the expiration of the fortnight the patient was much better ; but she declaring her belief that the lozenges did no good, these were discontinued. Light farinaceous food, with eggs and jellies, was then ordered, and in about three months such articles as tripe, minced meat, etc., were permitted. In six months the lady was able to take ordinary diet, but even then a very hard "morsel" sufficed to produce some discomfort in deglutition.

In connection with the foregoing case I desire to express my indebtedness to the late Sir Morell Mackenzie, whose lucid description first called my attention to the true nature of this disease.

REMARKABLE INCREASE IN BODILY GROWTH FOLLOWING the REMOVAL of TONSILS and ADENOIDS.

By PERCY S. JAKINS,

Surgeon to the Central London Throat, Nose and Ear Hospital.

A YOUTH, P. T., aged seventeen, was brought to me two years ago with a view to eliciting my opinion as to the reason of his remarkably short stature. His brothers all measured over six feet, but my patient only five feet three and a half inches, while his weight was only seven stone seven pounds. I was led by his appearance to consider him the possessor of post-nasal adenoids, and possibly enlarged tonsils. On examination this view was confirmed, and I recommended the necessary operative procedures, which I carried out next day. These were entirely satisfactory, and I saw no more of the patient for two years, when he called upon me in the person of a well-grown man, having in that time increased in height from five feet three and a half to five feet ten inches, and in weight from seven stone seven to ten stone. His brothers had attained the stature already mentioned considerably before his age, and the change in him beginning *immediately* after the removal, the inference was inevitable that the change was more or less directly the result of the operation.

THE BRITISH MEDICAL ASSOCIATION.*Sixty-first Annual Meeting, at Newcastle-on-Tyne.***REPORT OF THE OTOLOGICAL SECTION.**

THE Otological Section of the British Medical Association met at the College of Science, Newcastle-on-Tyne, on Tuesday, August 1st. The chair was occupied by Dr. HENRY BENDELACK HEWETSON, of Leeds who delivered the following address :—

The Teaching of Otology.

My first duty, gentlemen, in rising to open the meeting of the Otological Section of the British Medical Association is to acknowledge with deep appreciation the confidence which has been reposed in me in asking me to fill this chair as a representative of British otology, a position which I greatly value, not only so particularly from the "lustre which lies about the throne," honoured, as I am, by being called upon to preside at the *renaissance* of the Otological Section, but rather that it becomes a rostrum from which I may, I feel sure, with advantage ventilate many points of interest and importance relating to the advancement of aural surgery in the present century, some debatable, and others, more particularly those dealing with the larger and wider questions of education in the study of oto-rhinological surgery, which I trust you will agree with me in thinking are beyond the realms of debate.

We are met here to-day in this grand old city of Newcastle-on-Tyne, and although I cannot with some noted individuals who, wherever they go, claim that this or that locality is the very place from which they spring—my blood is not northern enough for this adaptability—still, as a Yorkshire neighbour, and with a cordiality which I will concede to no one, I join with Dr. Ellis and Dr. Macaulay in welcoming to Newcastle-on-Tyne British and foreign otologists, particularly Professor Giampietro, of Naples, and others who have travelled so far to attend this and previous meetings of the British Medical Association. And although I cannot claim to have sprung from Newcastle, in science Newcastle is universally claimed by virtue of its renown. Its great men who have been foremost in the inventions of the world have made it public scientific property, and here we are to-day, having been whirled from the four corners of the Empire, safely and surely, by that great locomotive agency which first saw light in this ancient borough, through the penetrative imagination and inventive genius of George Stephenson. The dread engines of destruction of Armstrong brood with silent power over our peaceful acquisition of knowledge, for the benefit of mankind, and the Selborne-like natural history pursuits of Hancock have founded, in concert with Hewitson the naturalist, a museum hard by, of which the city ought to be justly proud, being created by her noblest sons.

These acknowledgments, however, bald and passing though they be, are wrested from me even in an address on otology, since I am deputed,

as it were, being a Yorkshire neighbour, to remind you that we meet here in an atmosphere of scientific thought and, through the gentler sister Durham, literary achievements ; therefore I trust that you will on this account pardon my digression whilst reminding you of it.

In this special department the lectures on otology ten or twelve years ago, started by our worthy Vice-President, Dr. Ellis, in this town, were an effort, laudable in the extreme, to bring the study of otology to the front, which—shall I say to the shame of the city ?—no longer exist, Newcastle being one of the many cities in which the great need of a regular course of otological lectures is as yet, I believe, unprovided for.

Of the high position which the profession of general medicine and surgery here holds it is not for me to speak, except, as I trust it will be accepted, as a tribute from a sister section to be dwelt on more fully and eloquently than in a short sentence of passing but none the less sincere appreciation.

In thinking over the best means of making an address such as this useful to otological science, and being determined that I would, if I were able, make it so, I revolved in my mind whether that end would be best attained by recounting what, I take it, is already known of the more recent progress in otological surgery, giving a summary of advance and so on, which is often the way with addresses of this nature. I was, however, arrested by the thought that although much has certainly been done in the last thirty years in the advance of otological work, the still further thought prompted me to ask the question : How is it that greater advance has not been made ? To me it is deplorable that greater advance in the study of auri-nasal surgery has not been made. I do not so much mean in the case of individuals as amongst surgeons and practitioners in general.

It will be in the memory of most of you here—speaking of twenty to twenty-five years ago—how the study of otology, in England at all events, was scouted and jeered at in a quiet way, if not actually openly. Surgeons of the highest repute in some of the grandest work in the field of surgery would say—and I have heard many such remarks as these—“ You can do nothing, it’s an ear case ”; “ if you can’t get an ear better by syringing, it is of no use trying to improve deafness ”; remarks like these made with an air of contempt before students, damping their ardour (if they had any), as well as seriously warping their scientific judgment, because made by men whose skill in their own paths stood high. I heard these remarks, gentlemen, and determined that I would try my constant best to overthrow the spirit in which they were made, and I have now this opportunity, which I cheerfully embrace, of giving my experience of its effect on the science and art of aural surgery. There have flourished in Europe many otologists, whose work has been a steady protest against all this ; men like Professor Politzer (who, by the by, very much regrets, in a letter to me recently received, that he is unable to accept the invitation I sent him to be present here to-day, since he had already arranged to go to Rome to attend the International Congress), whose work is a monument to his devotion and genius ; my friend Professor St. John Roosa, of New York (who also writes regretting that he cannot be with us)—his work is

also quite monumental in the science of otology. We must not forget Hinton, my old master, and Wylde ; and, before him, Toynbee ; or Grüber, Burckhardt-Marian, or Hartmann, or Moos, or Delstanche ; or Professor Guye, whom we were to have had with us to-day, but who has unfortunately at the last moment, I am sorry to say, been prevented from giving the section the benefit of his profound and learned study of otological science. In England the names of more recent workers in otology rise to one's mind : Sir William Dalby, Professor Urban Pritchard, who holds so ably the only chair in otology which we in Britain can as yet boast of, and the first professorship, I need hardly tell you, of otology at King's College : and, if he will excuse my mentioning him last, my friend Mr. Field, of St. Mary's, who has done so much for otology, and who held this chair when I had the honour to be his vice-chairman at Leeds in 1890.

All these men, and very many others, whom time only forbids me to name, have struggled with their genius in a veritable quagmire of otological stagnation, which is even now like a field just beginning to be drained, but swampy still.

I do not put the matter one iota too strongly, as I will endeavour to show you ; and in the pursuit of this subject I am drawn into the question of how far we, in our early student days, received instruction, even up to the then known standard of otology. How many thousands of practitioners will tell you, what you know to be too true, "that they had no opportunities in their student days for studying diseases of the ear." I may say for myself and contemporaries that there were no opportunities, had we wished to avail ourselves of them, in the quite ordinary course of a student's career, and the uselessness of treating deafness was constantly dinned into our ears.

Faulty Examination.—During the preparation of this address a young medical man, having recently obtained the highest possible degrees in medicine and surgery in England, whom I knew well, applied to me, asking my advice as to how he should proceed to treat cases of otitis in children, associated with scarlet fever, measles, and the like. I expressed my surprise that, having taken such high degrees, these subjects should not have been within the range of his reading and studies. I asked him if, in all the examinations he had passed so successfully, he had ever had a question set in otology. His reply was that *he had never been asked a single question in otology.* It is only natural that men should study as students those subjects which are found to "pay best" at examinations. The diagnosis and treatment of aural diseases is hardly referred to in qualifying examinations, although it is well known how many serious—nay, even fatal—cases are sure to fall under the observation of the general practitioner. If the examiners fail to set the questions, the student will hardly be prepared to spend time upon a science his ignorance of which, he well knows, will not in most instances seriously prejudice his chances of passing his examinations.

It was with these memories ringing in my ears that I undertook to touch in this address rather upon the weakness than upon the strength exhibited from an otological point of view in the training of medical men,

in the middle period chiefly, of this nineteenth century. The effects of the absence of this training are as yet painfully evident, and freely, candidly, and generously admitted by some of the most worthy general practitioners with whom it is my daily privilege to confer. When I was attending the meeting of the International Otological Congress at Basle some years ago, it occurred in one of the debates how seldom aurists ever saw a case of otitis media in its association with an attack of scarlet fever, and in thinking this over I tried to recall how many I had myself seen since that date—1880, I believe. At the same time, I find—and it will be in the experience of all—that we are treating the disastrous results of scarlatinal otitis every day: their name is legion; and yet I could call to mind only one case in which I had ever seen in consultation a case of otitis media due to scarlet fever during the progress of the fever. This was quite recently. I was asked by Dr. Clayton, of Aberford, near Leeds, to see a young lady who had an attack of scarlet fever complicated by double otitis media with pus pouring out of her ears. I am glad to say that the result was as satisfactory as the experience was novel. In less than seven days we had been able to stop all otorrhœa, and in about ten days the child heard perfectly and the membranæ tympani were healed with no ill effects.

This is an instance which I will dilate on by suggesting the further question as to how many cases of scarlet fever become fatal because of the otic complications not being scientifically interfered with during the attack of scarlet fever. It will occur to many of my hearers, or readers, how many and many times over he has received cases of otitis media which have dragged on and on, hardly treated, hardly diagnosed possibly, with some hidden astrological folk-lore suggesting that "they would grow out of it," or, "if the discharge were stopped it would go inwards," notions too often agreed in tacitly until they drift on into mastoid trouble, again put off, and death. How many cases of mastoid or other trouble may we not all have seen which, if dealt with early enough, could very easily at first have been confined to their simple character. How many cases of naso-pharyngeal trouble, if treated intelligently early, would never have produced the serious deafness or the complications, as well as ill-development and blunted comprehension which accompany nasal stenosis. In the words of the late Sir William Wylde, "always attend to ear affections, however trivial they may appear; because you cannot tell *when* they will end, or *what* they will end in."

In the not very distant future I trust experimental research in laboratories, possibly by the aid of vivisection, will help us to clear up hidden difficulties, and make our subjective knowledge objective on such points as auditory vertigo and the like. We must not rely too much on irregular clinical demonstration, but rather on systematic courses of lectures with a clinical tendency and interest much more pictorial and illustrative than at present is in vogue. But to me there is an ever-increasing tendency to museum teaching and pathological and *post-mortem* demonstration. In most of our hospitals and newer medical schools, the fabric of the institution has been planned with the full conviction that they have been built for the future student's advantage in this respect. I speak from the experience

of having recently assisted in planning the special eye and ear department's rooms in the New Infirmary extension at Leeds, and witnessing the splendid designs the Yorkshire College Medical Board have secured for the new Leeds Medical School. Also in other places the same spirit has guided the architects and their advisers—at Manchester, Newcastle, Liverpool, Birmingham, and elsewhere, where, thanks to the great public generosity, we have been able to push far beyond the borders of bygone requirements. Lecturing is not, in my opinion, an unmixed good, but I plead for the extension of lectureships on diseases of the ear in order to give point to the clinical teaching, as being on the side of order and discipline of thought, as well as placing the study of otology on a par with the study of ophthalmology, to which it is second neither in interest or importance ; and in this I speak as an ophthalmologist, my appointments and training and practice combining both specialties.

My contention is that we must look to better medical education to accomplish all this, and do not let me be misunderstood for a moment ; it is not the specialists themselves that can do this, except so far as they can by virtue of their position as professors, lecturers, and clinical teachers, train the student to know when and where the danger lies. I am not speaking of ills which are confined to the specialist's consulting room. I am alluding to diseases and congenital states which make the possessors prone to disorders occurring in the daily practice of every general practitioner in the world. These are the men to whom the public will fly in their trouble, and it is right that they should ; it is the general practitioner who has to make the first diagnosis and decide on the importance of the case, and it has been the cry in Europe generally that the expert has frequently only been called to see the case when cure, through delay, has become impossible. I ask myself, and I ask you as professors and teachers of otological science, How is this to be remedied ? True it is that to a large extent the remedy has already set in, and, with the extension of from four to five years in the student's curriculum more time and opportunity will thus be granted for the acquisition of knowledge in the field of the special branches, so as to make our students better general practitioners. I always find that the man who knows most is quicker to appreciate the value of another trained mind. Thus, to be quite clear, I am striving for the better education of students in special subjects to the end they may become more widely cultivated general practitioners. These are the men who are guiding the great medical and surgical work of the outer world, and it is to be hoped that the future education will widen and deepen their already wonderful versatility in dealing with the multitudinous forms of disease which are perpetually coming under their notice. One of the most interesting forms of advance lies in the establishment of post-graduate courses ; and those of you who have had, like myself, the privilege of demonstrating to post-graduate classes, can well appreciate how great the need for such courses is, as they are in so many places, to the advantage of all concerned. The action of the licensing bodies, and requirements regarding the filling up of schedules in reference to the attendance of students upon special classes in otology, as in ophthalmology, will very much assist in the right direction.

In England there has been a great advance these last ten years and upwards; our hospitals have all their aural, ophthalmological, and other special departments, and there is now an army of ardent otologists teaching clinically and very admirably diseases of the ear, nasopharynx, and throat which, for purposes of otology—whether anatomically or pathologically considered—are inseparable. I was led in the pursuance of these arguments to analyze the kind of teaching in this department going on in Great Britain and Ireland, and also, if I could, draw any conclusions from comparison—if not, as I suspected, by contrast—with the Continental work that was being done in this direction. I accordingly determined to investigate the whole question, and by the great courtesy and kindness of the deans of our medical schools of the United Kingdom and the principals of nearly all the German universities and schools of medicine, those in Austria, in Holland and Belgium, Italy and Poland, Sweden and Norway, Denmark, with one exception I have received lengthy and courteous replies to my circular letter, and the exception is in the case of the French schools. I have not had a reply from France of any sort or kind. My object was to find how far the study of otology was at this time recognized and fostered by a lectureship on otology or a professorship outside clinical work, which, in my opinion, loses much of its force and value by being in many cases the only form of aural training a student obtains whose attendance is not insisted upon hitherto by the licensing bodies—being at the option of the student. I applied to *thirty* medical schools and universities in the United Kingdom, and found that, out of the *thirty*, *one* only, as I hinted before, had a professorship of otology; *six* out of the *thirty* had a systematic course of lectures by an approved lecturer, of course in proper combination with clinical training (one of the *six* has been appointed during the preparation of this address); and of the remaining twenty-three, fourteen only provided that otology should be taught clinically. I will not weary you with the special schools to which I refer, but all this information has been most kindly and generously placed at my disposal with the avowed intention of my making what use of it seemed to me well in bringing the subject before you.

Now for the Continental schools and universities. I will take those of Germany first (because they strike a severe contrast with Great Britain) along with the schools of Austria and Holland. I received *thirteen* replies from German universities and *twelve* of them had a professorship of otology; in the other instance, the thirteenth, a celebrated otologist held a private clinic, and lectured regularly in a kind of way acknowledged by the superior body, as is proved from the fact that his lectures were held sufficient to fill the post of professor of otology, and were reported upon to me by the principal of the university in question. From Austria I have most kind letters, telling of their elaborate courses in otology—*five* universities, *every* one having a professor of otology. The remaining universities having a professor of otology are Turin, Liège, Amsterdam, Moscow, and Basle. I must here refer to the honoured name of Burckhardt-Marian, whose premature death deprived Europe of a splendid aural surgeon and Basle of its then professor of

otology. I have no doubt I might have extended this list, but I chose an unfortunate season, last Easter, to make this inquiry, forgetting for the moment how many of the heads of leading bodies would be from home and would possibly never get my circular, being, I knew, the cause of their delay in replying in several instances.

If we are reviewing the strength of our naval or military forces, do we not look rather in true estimate of the strength to the weaker parts of the phalanx? So I trust you will take this all too imperfect review of the teaching possibilities in our schools of the science which we all have at heart, and for the furtherance of which we are met here this season.

If we are to expect more of the general practitioner we must teach him more as a student, and the more he knows the deeper and purer will have to be the knowledge and skill of the expert; and I trust that I shall offend no ears when I incline to the belief that no man should commence —nay, it is bad for his science if he does—his career as a pure specialist in any branch of medical science. A pyramid can stand only when it stands upon its base, it cannot stand on its apex. Circumstances, adaptability, and personal fitness may all tend to make a man gradually narrow—concentrated I would rather say—as his surgical pyramid grows upon his special leanings in practice. Sometimes his reputation and his professional brethren and the public almost compel it (as in the case of the late Sir William Bowman), but let it always be founded on the broad base of an enlarged scientific and professional early life and training. Then the ear, or the eye, or the throat are to the rightly-seeing mind, not merely the outline and limits of his professional prerogative, but rather interesting and highly-wrought organs, acting, whether it be in health, or whether it be in disorder, or in disease, as intricate agents, signalling, mayhap, the early signs sometimes, and oftentimes creating a vicious circle in the general economy of human life.

A New Tympanic Syringe.

Dr. MILLIGAN, who exhibited a new tympanic syringe, said:—In cases of suppurative disease of the middle ear, the first indication is to cleanse the tympanic mucous membrane in such a way that local applications may be applied directly to the diseased surface. The difficulties of thoroughly cleansing the parts are, however, at times very great. This is more especially the case when the accompanying perforation is small, or when it is situated high up upon the surface of the membrana tympani—e.g., cases where the perforation is in the membrana flaccida Shrapneli. In such cases the ordinary procedure of syringing the external auditory meatus is insufficient. Hardly any of the fluid finds its way through the small perforation into the cavity of the middle ear to flush the diseased mucous membrane. Washing out the middle ear by way of the Eustachian tube is, no doubt, a satisfactory method in many cases, but, unfortunately, many patients resent passing of the Eustachian catheter, the first essential for successfully carrying out this line of treatment. Intra-tympanic syringes for passing along the external auditory meatus and through the perforation into the cavity of the middle ear have been designed by various aural surgeons, among

others by Hartmann, Blake, Politzer, and Pritchard, and have been of much service. These syringes are, however, somewhat difficult to manipulate, and have seemed to me, from the position in which they have to be held, to partially obstruct the view of the deeply-lying parts of the ear. In addition, it is difficult to study the instruments while at the same time the process of syringing is taking place. These difficulties are, I think, in a measure overcome by using an intra-tympanic syringe, fed from a lofty reservoir. The advantages of this intra-tympanic syringe are (1) that it can be held perfectly straight while the fluid is streaming from the reservoir into the middle ear; (2) that during the whole manipulation the point of the syringe is kept constantly in view; (3) that by altering the height of the reservoir the pressure of the outgoing fluid can be regulated according to the special requirements of any particular case.

Treatment of Chronic Suppuration by Excision of the Auditory Ossicles.

Dr. W. MILLIGAN, of Manchester, then read a paper on the treatment of chronic suppuration of the middle ear by excision of the auditory ossicles, in the course of which he said: In certain cases of chronic suppurative otitis media the diseased process is confined to those portions of the middle ear which are situated behind the membrana flaccida Shrapnelli. Whether the cause of this localized suppurative process is to be explained by the propagation of such inflammatory affections as eczema, or whether it is due to extension of disease *per tubam*, I do not at present stop to discuss. The first theory is warmly advocated by Walb; the second, or tubal theory, is the one more commonly accepted, however. Whatever may be the actual sequence of events in the production of suppuration in this region, all aurists are, at any rate, agreed as to the great difficulties encountered in its successful treatment. These difficulties of treatment are partly of a mechanical nature; are partly due to the anatomical arrangement of the mucous membrane in this part of the middle ear; and partly also to the pathological changes set up by existing mastoid processes. The recessus tympanicus forms the highest position of the middle ear, and is, when diseased, frequently shut off from the general tympanic cavity by the formation of inflammatory adhesions. This fact explains, in many cases, the uselessness of washing out the middle ear *per tubam* or of using Politzer's air douche as methods of treatment; from the one because the fluid fails to reach the diseased mucous membrane, and in the other the stream of air merely inflates the cavum tympani, and does not succeed in driving the purulent secretion from the recesses. In seventy-five per cent. of the cases examined by Schmiegelow air failed to pass from the Eustachian tube through the perforation in the membrana flaccida. Then again we find that the accompanying perforation of Shrapnell's membrane is too small, and situated at too high a level upon the surface of the membrane to permit of efficient drainage. Also, the anatomical structure of the region is such that numerous loculi are formed by folds of mucous membrane, which normally exist in this region, and the results of pathological processes

are such that these localities, becoming shut off from one another, retain inflammatory products. In addition, chronic suppurative affection of the mucous membrane lead rapidly to caries of the surrounding bony parietes, from the fact that the mucous membrane is in reality the muco-periosteum of the part. The head of the malleus and the body of the incus being involved in these folds, and being kept constantly bathed in putrid pus, are prone to become diseased. These carious spots are frequently found upon these ossicles, either along or in conjunction with caries of the surrounding bony walls.

Ludwig, who has done excellent work in this department, states that, of the three ossicles, the incus is the one most frequently found diseased. In thirty-two cases of hammer-anvil extraction he found the incus carious in eleven, or thirty-four per cent.; both malleus and incus in fifteen, or fifty per cent.; the incus thus being carious in twenty-seven, or eighty-four per cent., of the cases.

The stapes, from the fact that it receives a double blood supply, is much less frequently attacked. When it is, however, the disease is confined to its crus. The number of different methods of treatment which have been advocated at different times by different surgeons is perhaps the best indication we could have of the great difficulties which are encountered in successfully combating disease in this situation.

There exist among us those who think that no form of procedure short of surgical interference is of any use whatever, while others, though by no means rejecting the employment of surgical methods, lean to a more conservative line of action, and prefer to try, for a time at any rate, some of the milder forms of treatment.

Such methods as syringing the external auditory meatus, the employment of Politzer's air douche, or even the washing of the middle ear *per tamen*, are in almost all cases, I think, insufficient of themselves to effect a cure, for reasons already mentioned. Washing out the diseased recesses by means of any of the intra-tympanic syringes now in use is a valuable method. This may be followed up by the insufflation of powders, as recommended by Bezold, Gomperz, and Liebenmann, or by tamponing of the part, as recently suggested by Gruber. Yet the most assiduous care on the part of the surgeon, and the greatest patience on the part of the patient, will fail to effect a cure, owing to the fact that localized carious areas exist either upon the ossicles, or tympanic walls, or upon both together, areas which resist local methods of treatment in the most stubborn fashion. So long as these foci exist, so long does the disease tend to perpetuate itself, and so long is the patient subjected to the risks incident to the presence of chronic suppurative middle-ear disease.

The question of excising the diseased ossicles, and any portion of the membrana tympanica which may remain so, was first proposed by Schwartz, and the operation has of late been frequently carried out. Indications for its performance are - 1: chronic purulence of the middle ear, with caries of the ossicles, and 2: presence of cholesteatomatous masses in the tympanic cavity. In favour of the performance of the operation, it may be said that in almost every case where it has been put

in practice purulence has either been arrested or, at any rate, has been much diminished in amount. Such symptoms as headache, tinnitus, vertigo, and constantly recurring attacks of ear-ache, are also usually promptly relieved. Against the performance of the operation it may be said that in those cases where parietal caries existed at the same time the operation is insufficient to effect a cure.

It must be borne in mind, however, that by removal of the diseased membrane and the carious ossicles, either affecting free drainage, and that thus any accompanying carious foci are rendered more accessible to the spoon or small curette, and can therefore be much more thoroughly treated. The operation has now been so frequently performed, both at home and abroad, and the after history of the patients has been so carefully followed up, that it is now possible to gauge the various pros and cons, and to arrive at some definite conclusions as to its utility or otherwise.

Schwartz, Ludwig, Stacke, Grunert, Wetzel, Rheinhardt, Kessel, Sexton, Burnett, Coiles, and many others, have published the records of their work with more or less gratifying results. Ludwig, in an analysis of thirty-two cases, obtained the following results :—

Cured	20 cases.
Uncured	11 cases.
Dead	1 case.

The death in this one case was not due to the effects of the operation.

In another analysis of forty-three cases, the following results were obtained :—

Cured	22 cases.
Uncured	5 cases.
Under treatment at time of report.....	9 cases.
Result unknown	5 cases.
Dead	2 cases.

In these forty-three cases the following results were found regarding the condition of the ossicles :—

Malleus healthy, incus carious in	12 cases.
„ carious, incus carious in	25 cases.
„ „ „ uncertain in	2 cases.
„ „ „ healthy in	1 case.

While in three cases the attempt to extract ossicula failed.

In forty-three cases recorded by Grunert, cases which were kept under observation for periods varying from one and a quarter to one and three-quarter years, there were 553 per cent. of cures, and 441 per cent. of failures. Among thirty cases by Rheinhardt there were sixteen cures, and the hearing power was improved in 50 per cent. of the number.

Dr. W. ROBERTSON said it would be admitted that Dr. Milligan had very fully, correctly, and lucidly represented opinion, both in England and on the Continent, on this subject. So long as the process of caries, or necrosis, is confined to the ossicles, their excision and removal might do

good, but if disease is in the attic, and extending into the antrum per the aditus, then we could scarcely hope to cure the otorrhœa, which is really dependent on the deeper cause. The heads of the malleus and anvil bone form a floor to the attic, which, if removed, might lead to the proper drainage of the attic. It was important to consider the question of an anaesthetic. A general anaesthetic, he thought, was not required. It was to be feared that a mass of *technique* had been raised around this process, which, at best, was only an ameliorative measure. He had generally relied on cocaine, or a whiff of ether, which could be given in a more erect attitude. In using the hook to remove the anvil it must be carefully guarded, so that no injury happens to the tegmen tympani. The hook itself ought never to exceed three millimètres in height, otherwise the tegmen would be injured. The two instruments (intra-tympanic syringes shown by Dr. Milligan) were of really practical value, and formed a welcome addition to the aurist's armamentarium. A few years ago he (Dr. Robertson) introduced a less elaborate, but useful, intra-tympanic syringe, which had a movable point, by which irrigating fluid could be directed in any direction within the ear.

Dr. HILL remarked that he had performed the operation of removal of the ossicles in the middle ear, where suppuration was associated with pain. In his last case the treatment resulted in the cure of the discharge, and the total relief of pain, but the patient suffered from great prostration, and marked vertigo, and distressing tinnitus for nearly a fortnight, and the hearing power was decidedly worse. He thought the operation should not be undertaken without informing the patient that it was one in which hearing would not be likely to be improved, and that the defects might even be increased thereby.

Dr. BRONNER thought that the intra-tympanic syringe would be very useful. It was so easy to handle, and the pressure of the spray could be so easily regulated. As regards removal of the ossicula, he thought that although the operation was undoubtedly useful in some cases, still there was a great danger of recurrence. It had been proved that, in most cases in which the ossicula were affected, the wall of the attic and mastoid antrum were also diseased. In these cases the only radical mode of treatment was to open the antrum and establish free drainage. Of four cases in which he had removed ossicula several years ago, the membrane had healed in a few weeks, but in three of the cases there had been recurrence of the discharge after one year or more, and the mastoid antrum had to be opened. Dr. Bronner therefore thought that the most reliable method of treatment was to enlarge, if necessary, any opening in the membrane, and syringe the attic or middle ear, and if the discharge did not cease in two or three months, then to open the mastoid antrum and establish free drainage.

Dr. R. ELLIS said he would like the indications to be very clear before removing the membrane and ossicles. Of course Nature, they knew, extruded necrosed ossicles with safety, and here they had a hint. To operate if they were diseased was a procedure not to be undertaken lightly. To introduce a fish-hook-like instrument to catch, as it were, a

minute bone, hurts, so to speak, one's surgical feelings. The question of hearing did not arise in his mind, but if life was considered to be in danger let them be removed.

Dr. ARBUTHNOT LANE considered that the bones of the middle ear were secondary in importance to the chronic purulent discharge. He thought that antrectomy gave better results both to the hearing capacity and to the subjection of the purulent discharge.

Dr. WARDEN looked upon the operation as a very serious one, which was not to be undertaken without first trying something of a less serious character. He never operated himself where he saw other chances of good, and he thought they should not look at this subject lightly. As they went on they might improve in the mode of treatment. Other modes of treatment might suggest themselves, and he hoped they would be considered.

The CHAIRMAN was gratified at the excellent discussion which had arisen out of the paper. There were, doubtless, serious results which might follow the operation favoured by Dr. Milligan, and he (the Chairman) thought it was their duty to their patients to point out the risks, and to inform them that the operation was not undertaken to improve the hearing.

Dr. MILLIGAN briefly replied.

Dr. W. ROBERTSON (Newcastle-on-Tyne) read the following paper on *Mastoid Operations*.

In no direction, perhaps, have more enlightened measures been added to the list of surgical procedures within quite recent years than in the treatment of diseases of the temporal bone. It does not suffice now to merely trephine the mastoid antrum for any and all affections betraying themselves in this region. The mere carrying out of different operations now recommended have borne fruit in the shape of a more exact pathological grasp of the conditions, and shown the necessity for a more finished diagnosis of any given case before the operation that it demands can be decided upon.

Briefly, the indication for opening the mastoid antrum, without reference to the mode of affecting primary and secondary inflammation of the mastoid, is in chronic discharges from the middle ear complicated with recurrent swelling over the mastoid; in chronic otorrhœa with pain in the mastoid, and where the otorrhœa is rebellious against the treatment directed towards the middle ear and *per tubum*; in severe long-standing pain and neuralgia with mastoid disease; in cases where lethal conditions exist from presence of putrid pus in the ear, and, again, in cases where the pus observed in the middle ear is found not to arise from thence. In the last instance, what may be termed prophylactic measures are those employed, the necessity for which is undeniable. In considering the mode of operation, the above may be divided into acute and chronic conditions affecting the antrum. For acute empyema of the mastoid a general consensus of opinion prevails amongst operators that Schwartz's operation, suggested by him twenty years ago, is the method of opening

the antrum which most fully meets the exigencies of the condition. It has stood the test of time, and bears a record of recoveries which, of course, more recent methods could not produce. Such an operation is the more necessary in the presence of an acute process in the middle ear and antrum, inasmuch as the conducting apparatus contained in the former may be expected to recover, and resume its function.

There are a number of conditions that simulate mastoiditis and must be eliminated—viz., affections of the soft parts over the mastoid which give rise to swelling and abscess; raghades; eczema, and carbuncle—which are to be borne in mind. Suppurations of the parotid often give rise to fistulae extending to the mastoid, which may not suggest any source. The condition of primary mastoiditis demands more consideration. The possibility of its existence cannot be denied, and it must be deemed rare.

The history of the case, and a careful examination of the middle ear must be duly investigated, bearing in mind that the surface affection of the mastoid may have actually originated in some deeper source of infection, and an actual collection of pus, calling for treatment, subtend the new superficial phenomena. Zaufal points out that the pneumonia bacilli may lie dormant within recesses of the temporal bone long after the middle-ear affection has become old and hearing restored, to break out when suitable conditions transpire. Such a sequence of events transpired in one of my cases. Originally the otitis subsided, to be followed in a short time by actual inflammation and pain in the mastoid. At the operation a large collection of pus was found just under the cortex, the elimination of which cured the patient, there being no palpable connection with the middle ear, which at the time was evidently, however, very diseased. In this case, no doubt, the pus overleapt the boundaries of the antrum, and rested in the walls that were opened for a time.

The swelling in the retro-maxillary space occasioned by the escape of pus from the perforation near the apex of the mastoid process is not to be confounded with phlebitis of the jugular, etc. Once pus gains freedom at this side of the mastoid, it may take a very free course, extending backwards to the occipital region, downwards amongst the great vessels of the neck, and then form a retro-pharyngeal abscess, prevented as it is from opening outwards. I need not here do more than mention, in passing, the dangers that are thought of in performing Schwartz's section of the mastoid, viz., wounding the lateral sinus, the facial nerve, or the semi-circular canal. The first offers the most cause for fear. In many temporals the sinus runs so deeply into the process as to leave a mere margin of bone between itself and the posterior meatal wall, which is certainly insufficient to allow all the section into the antrum from without. In the presence of such an accident which occurred to myself, in one of my cases, it is a consolation to know that, provided all due measures for disinfection have been adopted during the operation, plugging the wound with iodoform gauze, or better still with Horsley's antiseptic wax, tides over the occurrence safely. The fact that Schwartz has noted the time (eight days) at which operations may be

resumed, suffices to show that it is a mishap which occurs now and then. To prevent wounding the facial in the stylo-mastoid foramen it is well to avoid cutting too low, especially in the depth of the bone, and to miss the semi-circular canal, to stop the section at the depth of the membrana tympani. The spina supra meatus marks the place where chiselling is begun. This is the nearest spot to the antrum, lying a little higher than the floor of the antrum, and marks the spot where Nature oftenest perforates the cortex. The safest and most suitable instruments for the section of the bone are the original instruments suggested by Schwartzé, viz., the mallet and chisel, the dangerous nature of neighbouring parts forbidding the use of drills and trephines, so often suggested. With these no precise knowledge can be obtained, either with the probe or finger, as to progress made in the section of the ear.

As the change in the mastoid is not a carious process, but rather an absorption of the ear salts out of the large tissue, leaving this practically unaltered otherwise, and capable of becoming again ossified, extensive curetting is not indicated beyond what is necessary to secure free escape of suppuration. Free escape of diseased products is always possible through the somewhat prolonged use of the lead spigot to keep the mastoid wound open until the otorrhœa has ceased.

Another complication of the operation is penetration into the middle cranial fossa, an instance of which I lately heard of under the care of a competent surgeon.

The middle fossa was entered, and bleeding from the exterior through the perforation into the brain killed the patient in seven hours.

Küster, both in acute and chronic cases, recognizes removal of the posterior meatal wall. This operation seriously impairs the possibility of any repair, and succeeding functioning of the conducting apparatus in adult cases which is retained in Schwartzé's operation, while in acute cases the greater part of the process of inflammation has fallen in the antrum and mastoid, and where the bonelets and membrane are not seriously damaged. Then Küster's operation is certainly a retrograde step, and unnecessary ventilation is caused where the posterior wall is involved, and there is the same objection to its removal.

The battle of the methods really begins when we come to consideration of the operation for diseases of the mastoid connected with chronic inflammatory process in the middle ear. Exudations vary in quality and quantity, and their diagnosis is not always possible, even by the most experienced aurist. Under the circumstances referred to, the following methods are employed: Stacke's operation for removing the bonelets and reopening of the *atticus tympanicus*: Schwartzé's old method; Stacke's operation for opening the antrum and aditus: Küster's operation for removing the posterior wall of the meatus.

If in a case of acute otitis purulent matter continues to be elaborated in the middle ear, then there is cause to fear that some unusual process has arisen in the mastoid antrum; that there is some peculiar configuration in the cells of this bone that has contributed to the prolongation of the course of the disease in the locality, and hence of the acute otitis. When we come to inquire into the cause of any case of otorrhœa we

often find the ear mischief to have lasted a long time and are carried back, it may be two or three years, to perhaps an occurrence of acute otitis from perhaps measles or scarlet fever. If it is a matter of difficulty to arrive at the root of the causation of acute empyema arising in the course of an acute otitis, then the difficulty is intensified where we come to deal with the more chronic conditions.

The majority of cases of acute otitis recover in from eight to fourteen days, as do also, but probably at a later date, the associated conditions in the antrum. To the question, "What are the additional causes that contribute to the occurrence of acute empyema of the antrum?" the answer is difficult. As diversified are the causes that lead to the continuance of the discharge in the form of chronic otorrhœa in acute otitis. The cause of the continuance of the discharge longer than usual is a severer process than usual in the antrum. This, becoming established, forms one of the causes of chronic otitis media. Gradually in the course of the inflammatory process in the antrum, associated with chronic otitis media purulenta, the outer wall of the antrum becomes absorbed until all traces of cells and septa are lost. So constant is this result that some have assumed it to be a peculiar anatomical condition. Such, it is needless to say, is not a fact. During the days the otorrhœa is allowed to progress repeated re-infection aids the process at work in the mastoid, while under-current diseases add to the quota of influences which contribute to the same end. Sequestra situated deep in the mastoid or isolated caries of the antral walls act in the same way. The formation of cholesteatomata, depending upon the site of the perforation in the membrana tympani, if we are to credit the surrogation theory of this condition, is another fertile source of irritation of the bony walls of the antrum aditus and walls of the tympanum cells, and of a continuance of the otorrhœa.

Tubercular infection of the middle ear and neighbouring part calls for special attention. To facilitate its progress or advent some peculiar want of vitality on the part of the mucous membrane and osseous tissue must be assumed. Instead of sclerosis of the bone and proliferation of the mucous membrane, destruction of the latter takes place, and caries and necrosis of the former freely occur. Operation in that case is beset with danger. Especially is curetting to be avoided. The want of development of adventitious barriers to protect important structures in the neighbourhood often leads to such complications as otitic brain disease and fatal haemorrhage from the large blood-vessels.

Such, then, briefly are the conditions which are encountered in chronic diseases of the temporal bone—viz., sclerosis of the antral walls, with localized caries or necrosis, and proliferating mucous membrane, caries or necrosis in the aditus, outer wall of labyrinth or floor of the middle ear, caries or necrosis of the ossicular chain, implication of the attic and tegmen tympani. It would be impossible for me with the time at my disposal to fully describe the various operations proposed for these diverse conditions. The two operations proposed by Stacke will, I imagine, now be accepted as the most surgically practical. The first endeavours to lay the parts lying below the tegmen freely open up to the

aditus. The auricle, along with the posterior and superior soft walls, are freely separated from the bone, and would leave the tegmen chiselled away. A free view of the cavum tympani is now obtained, and diseased bonelets, as well as granulations, cholesteatomatous masses, etc., are freely removed.

If the disease is found extending into the antrum the soft parts over the mastoid are retracted, a protector introduced into the antrum, and the outer wall of the mastoid chiselled off, converting the antrum into an open gutter, continuous through the aditus with the middle ear. Flaps are made from the posterior soft meatal wall to cover over exposed bone. Before doing so all disease must have been carefully removed from the bone, otherwise the end much desired will be obviated. Tampons are placed in the meatus to aid the operation, and healing of the flaps. In performing this operation I have, in every case, employed in addition, at first, a strip of gauze behind the auricle, and then a leaden nail just over the part of bone to which the flaps did not extend, being convinced of the necessity of maintaining the external opening with the mastoid beyond the time occupied in healing of the flaps. I have secured, in some cases, permanent fistulæ behind the ear, than which no better preventive against recurrence of deep mischief again in the antrum is known. There are few cases of otorrhœa in which we may expect, where we find ossicles diseased, that to these structures alone the process is confined; nevertheless, the operation for their removal may be entertained. This has become surrounded by an unnecessary amount of *technique*. Cocaine applied directly to the parts suffices for the painless separation of the malleus, while for its ultimate extraction a few whiffs of ether may be given. Deeper narcosis is needless and objectionable. The anvil extractor (Ludewig's) must measure only three millimètres, otherwise the tegmen may be injured, and in using it, it must not be inserted too deeply into the middle ear, but kept rather close to the roof, where the anvil is more readily got.

These are processes which, while requiring considerable dexterity, may be looked upon as practically free from any of the dangers attendant upon Schwartze's section of the mastoid, and the facial and semi-circular canals are practically protected from danger. These operations are only indicated where the conducting apparatus has long become a mere obstructing factor beyond hope of repair. Hearing oftener than not is improved. Subsequent treatment is shortened, and permanent recovery is realized in a large percentage of cases. Recurrence of the disease cannot be so freely judged of, seeing that the operation, as regards statistics, is yet in its infancy.

Eustachian Synechic.

Dr. ROBERTSON then read a paper on the above subject. He said: Since drawing attention to the above condition in the Journal of the Association, some years ago, although it has received no recognition in recent text-books of otology, it has, I believe, been considered worthy of recognition at teaching centres. The lesion, as you are aware, arises in the following way: when the pharynx tonsil becomes abnormally enlarged

in a naso-pharynx of, perhaps, restricted development associated with ostia tubæ protruding more than usually into this space, as is often noticeable in this crowded condition of parts, adhesions are apt to take place between tufts of the pharynx tonsil, overlying the upper limits of the ostia tubæ. According to the subsequent changes in the tonsil, these adhesions remain of a fleshy consistence, or, as the tonsil recedes and atrophies, they are found to resemble whiter fibrous bands, of a length corresponding to the limits of the space and the degree of retraction of the tonsil. This recession of the tonsil and retraction of adherent bands gives rise to various forms of deformity of the mouth of the tube, while the rosy red injection on the surface of the ostium is observed in the neighbourhood of the insertion of the synechiae and thickening of the same. The former round character of the opening of the tube is, in these cases, always altered when the synechiae are attached to the upper limbs of the valve; then the opening is triangular. When attached to the posterior aspect, then the opening becomes slit-shaped. It is difficult in any case to say how far these synechiae function in the etiology of deafness. It will be admitted that, where these exist, the middle ear has for long, from other causes, been subjected to the evil influences of catarrh in the naso-pharynx, as these bands presumably arise in cases where extreme hypertrophy of the pharynx tonsil has been in existence. That these bands perpetuate catarrhal conditions in the tube on their insertion into it can be actually observed and demonstrated, which catarrhal conditions may be propagated from there into the middle ear. It will also, I think, be admitted that the distorted opening of the ostium will militate against the free egress of mucus from the tube, and hamper the free ventilation so necessary to the function of hearing. I must not omit to mention the thick fleshy adhesions formed by the meeting of thick bands of lateral granular pharyngitis with the lower aspect of the ostium.

In considering the question of how far in any case these synechiae affect a case, or rather the share they bear in the etiology of the accompanying defects, the condition of the middle and internal ear must be investigated. In some cases synechiae are discovered where little injury to the middle ear or hearing is apparent. Generally the case is otherwise, and we now and then come across cases where they are the only lesion discoverable, and associated with what can only be called tubal catarrh with depressed drum, etc., and where rupture of the synechiae prevails, a few applications of the air douche restore hearing to a satisfactory extent.

In another class of cases these synechiae are associated with a condition of middle-ear catarrh of a more insidious and less curable character, just as one might expect after so long an exposure of the ear to the repeated assaults of catarrh and swelling in the pharynx tonsil. Before even these synechiae have been formed the ear has probably suffered severe change, evidence of which but emphasizes the imperative necessity of an early and complete removal of the pharynx tonsil. Where there is the association of the appearance of sclerosis of the tympana, or previous suppuration within the tympana with these synechiae, it is not to be looked for that the mere treatment of the latter will affect a great

improvement, but as the diagnosis of any case narrows itself down to the existence of mere tubal catarrh it can be safely stated that the severance of these synechiaæ will immensely favour the desired result.

This brings me to speak of the mode of treatment best suited to destroy these bands. I have found the use of the galvano-cautery impracticable and useless. A much more complete destruction of these structures is necessary than could be possibly effected thereby. The finger is the best means to effect this, carried up to the bands, which are readily felt and made to rupture as completely as may be. The extent of rupture is often considerable. The finger is carried round the tube so as not only to rupture those attached superiorly, but also those extending from behind and from lateral granular pharyngitis inferiorly. There is often considerable bleeding, which of itself often acts beneficially on the ear. Subsequently the periphery of the tube is daily swabbed with a four per cent. solution of nitrate of silver to remove the collateral hyperæmia of the mucous membrane which is present. The air douche, with catheter, or Politzer's bag is, of course, to be used. Where only tubal catarrh has been the cause, recovery is rapid and satisfactory, and even in more advanced and chronic conditions the same treatment must be carried out.

Dr. ROBERTSON then read the following paper *On Implication of the Ear by Disease of the Nose and Naso-Pharynx*. I can offer no better proof of the origin of the deafness in these cases than the demonstration of the rapid cure of the ear, following upon the cure of the nasal affection, and *per contra* where no success attended the merely local therapeutics of the ear. As a firm believer in the secondary implication of the ear from intra-nasal conditions, I here offer in these cases indubitable proof of the existence of this inter-concurrence, and evidence of the necessity for disease in its continuity being brought under an uninterrupted observation.

As regards the influence of nasal diaphragms, I can offer you two illustrative cases. The main lesion of the ear rests in the tubal catarrh, occasioned by the abnormal obstruction to respiration through the nasal passages. On both sides of the passage collection and decomposition of discharge arise, which might well affect the ear in all the different ways by which infection is occasioned—that is to say, *per tubam*, and by the blood-vessels and lymphatics. In each of these two cases, upon perforating the diaphragm and restoring patency, the hearing spontaneously improved. Presumably the tubal catarrh resolved itself, and normal tendency to aeration and secretion was restored within the tympanum.

With regard to the other cases, I have noticed a great tendency for the ear to become involved in cases of suppuration in Highmore's antrum. In the milder affections of the ear in this state we may discover tubal catarrh with depressed drum, and the anomalies of hearing connected with a deficient aeration of the cavum tympani. Tinnitus is present and the blush on the membrane, suggestive of impending dry catarrh in the drum cavity. A judicious treatment of Highmore's antrum fortunately interrupts the process in the ear and leads to cure. It is probable that here the catarrhal condition of the middle turbinal is communicated to the region of the

ostium tubæ, and then propagated to the middle ear. So far no bacterial infection has taken place directly or otherwise. With a freer flow of pus from Highmore's antrum into the nose, acute purulent inflammation of the ear is a constantly impending danger, and it is probable that in these cases a primary cause is the *congestio ex vacuo* arising from a precursory tubal catarrh. We have in such cases a history of tinnitus, and fulness of the ear. Nothing cures the ear complication quicker in these cases than the immediate and satisfactory opening of Highmore's antrum. Where ozæna and disease of Highmore's antrum are combined, the ear, in my experience, is especially apt to become involved during the course of these conditions. Here, again, the only hope for permanent and complete recovery as regards the ear is to be found in radical treatment of the antral and nasal conditions, which alone restores the ear to health, without the aid of further aural therapeutics.

In chronic interstitial and purulent ethmoiditis, with or without polypi, there will be found in many cases more or less implication of the middle ear. In both instances there is no doubt bacterial infection which may readily get conveyed, directly or by the blood or lymphatics, to the ear. The mucosa of the pharyngeal vault in either of such cases has its vitality impaired, a condition which ultimately leads to thickening and swelling of the ostium tube. This at once lowers the vitality of the mucous membrane of the tympanum, and prepares the way for bacterial infection and subsequent otitis.

The last condition, and one prone to communicate evil effects, is suppuration within the sphenoidal sinus. One such case I can show. Here the tympanum is in a high grade of congestion. When the patient presented herself she complained of loud beating in the right side of the head, roaring tinnitus, deafness, and right nasal obstruction.

On examining the right nostril, it was totally obstructed by a hard induration of the lower turbinal. On scoring this deeply with a knife, and distending the nostril with an antiseptic plug, in a day or two I got the nostril somewhat dilated, only to find an indurated swelling of the middle turbinal, which was similarly treated. I now got a view of the interior of the nostril, and, with a probe, found pus and necrosis in the sphenoidal sinus. The nostril was now patent, and could be freely douched. A day or two afterwards the hearing returned. Examination of the membrana tympani showed redness and depression. Crusts, shell-form, in the post-nasum, but not to the same extent as formerly. The intra-nasal condition continues to improve. In this case paracentesis of the right membrana tympani allowed the escape of a considerable amount of viscid secretion, which immediately cured the irritating tinnitus which remained after hearing was bettered.

DR. WARDEN rose for the purpose of making a few observations with regard to the papers read by Dr. Robertson. It was really absolutely impossible to discuss properly the whole of the subjects so ably opened out, for each subject dealt with would take at least an hour to discuss. He felt himself to be in a perfect labyrinth. Here were three or four important and deep subjects which they had to discuss in an hour or two. He really did not know what point to touch upon.

The CHAIRMAN suggested that, as the question of mastoid operations was to be dealt with on the following day, the discussion on that subject should be deferred. This was agreed to.

Dr. MILLIGAN quite agreed the finger process was the best to rupture the bands, as mentioned in the paper. He was surprised that the subjects dealt with had not had more consideration in the past, but believed that now attention had been drawn to them they would be studied more carefully.

Dr. BRONNER said they were very greatly indebted to Dr. Robertson for the excellent papers he had given. He was glad that Dr. Robertson had called their attention to the intimate relations between diseases of the nose, the naso-pharynx, and the middle ear. Many cases of middle-ear disease were caused by the injudicious use of the nasal douche in cases of diseases of the nose.

Dr. JONES was of opinion that deviation of the nasal septum often kept up middle-ear inflammation in an indirect way by interference with treatment. Where there was secretion in the naso-pharynx, it was better to avoid, if possible, the use of Politzer's method of inflation, as by doing so the objectionable secretions must always, unavoidably, be forced into the Eustachian tube. It thus became necessary for this reason alone, when the Eustachian catheter could not be passed, to excise the projecting portion of the septum. He cited several cases illustrative of this.

The CHAIRMAN, in a few remarks, paid a high tribute to Dr. Robertson for his excellent paper.

The section then adjourned for the day.

Thursday's Proceedings.

Mr. W. ARBUTHNOT LANE, M.S. (London). *On the Symptoms and Treatment of Septic Infection of the Lateral Sinus, as illustrated by ten cases.* ("Brit. Med. Journ.," p. 561.)

1st. That septic infection of the lateral sinus is always due to the extension of an inflammatory process from an abscess between the bone and dura mater, through the wall of the sinus.

Therefore, the symptoms which result from the infection of the blood in the sinus are preceded by and are associated with those due to the presence of a subdural abscess, or rather, to speak more accurately, an extradural abscess.

2nd. The symptoms which a subdural abscess presents are dependent almost entirely on the fact of the dura mater being involved, and the chief indication of this condition is deep-seated pain and headache radiating from the seat of inflammation.

Therefore, it is impossible to determine in many cases whether one has to deal with a patch of inflamed dura mater, without the existence of an abscess, the inflammatory process having extended from the antrum to the dura mater in its immediate vicinity, or with a case in which the inflammation has been more intense, and pus has already formed. In either case, the patient derives immediate relief from operative inter-

ference, and though in the former case the degree of inflammation in the dura mater may not be sufficiently intense to result in the formation of pus, yet one has no guarantee that it will not develop, and then, if not removed, it will very probably terminate the patient's life.

3rd. A subdural abscess may produce death by producing a suppurative arachnitis, or, by infecting the contents of the lateral sinus, it may produce death by pyæmia. The abscess may, however, discharge itself through the antrum, middle ear, and meatus, or through the mastoid cells, or through the mastoid bone, by absorption of the superjacent bone, or through the opening for the mastoid vein. Still this course should not be counted upon, and even if it does take place, it is most advisable to perform antrectomy.

4th. In a large subdural abscess, besides the presence of the deep-seated pain and radiating unilateral headache, you may have a varying degree of inflammation of the arachnoid cavity, producing symptoms of arachnitis. These vary considerably in severity, probably in a direct relation to the area and intensity of the inflammation, and are represented by headache in the lower and back part of the head, retraction of the head, etc. When the dura mater is much inflamed, optic neuritis is usually present. The amount of deep-seated pain and headache present in inflammation of the dura mater seems to bear a direct relation to the degree of the inflammation, and the extent of the area of this membrane involved.

5th. Whether, in the case of a subdural abscess, the mastoid process be tender or painful on pressure depends entirely upon its structure. If there be no mastoid cells, as is frequently the case, the mastoid process may be pressed on or manipulated forcibly without the patient experiencing any discomfort; even when this symptom is absent, if the mastoid process be struck smartly with a pleximeter, deep-seated pain and tenderness is at once experienced.

6th. Whether a subdural abscess produces an infection of the contents of the lateral sinus or not, depends to a great extent on the situation of the abscess. For instance, such an abscess in the posterior fossa may not overlie the sinus at all, or, on the other hand, its area may be very limited, so that its floor may be formed entirely by the outer wall of the sinus. A subdural abscess usually develops in a case of chronic purulent otitis, and complicates one of the many attacks of pain, etc., these patients suffer from. Rarely, however, it follows immediately upon a first attack of inflammation of the middle ear.

7th. The symptoms of septic infection of the lateral sinus develop upon, and are superadded to those of subdural abscess. They consist solely of irregular, rapid fluctuations of temperature, very often amounting to a well-marked rigor, but not necessarily so. Of course, at a later period, other symptoms, due to the formation of secondary foci, etc., arise; but before these appear, apart from these fluctuations in the temperature, there is no other symptom that I am aware of.

8th. For this development of secondary foci elsewhere, it does not seem necessary that throughout the whole course of the case there should be any naked-eye evidence of thrombosis. Inflammation of the walls of the

sinus, intense enough to cause only an opacity of the intima, may be sufficient to produce, and can continue to produce secondary foci, even after the subdural abscess, which originally determined the inflammation of the wall of the vein, has been thoroughly cleared out.

9th. Unfortunately, too often, septic thrombosis of the lateral sinus escapes notice till too late, for, as in the more simple antecedent condition subdural abscess, the surgeon frequently expects to find tenderness or swelling of the mastoid process, pain on percussion, pain or swelling in the position of the internal jugular vein, etc., none of which are necessary symptoms of this condition. The explanation of this was fully pointed out in an abstract of clinical lectures on inflammation of the middle ear and its complications, published in the "Lancet," September 26th, 1891, and in other papers. It would seem usual that the less extensive the thrombus that develops the more virulent are the clinical symptoms of septic infection, the thrombosis being apparently an effort on the part of the organism to lock up the intruding micro-organisms and destroy them. It occasionally happens that when there is obvious thrombosis of the lateral sinus, and clinical evidence of it as evidenced by the temperature, such thrombosis will cease to produce symptoms when the subdural abscess has been thoroughly evacuated by surgical interference, or spontaneously. In septic infection of the sinus, apparently without thrombosis, ligature of the internal jugular vein after the subdural abscess has been evacuated may stop the rigors only after the sinus has become thrombosed, but not till then.

10th. Again, ligature of the vein and sinus in a case of septic infection, apparently without thrombosis, may not stop the progress of secondary foci, even though coagulation takes place in the sinus, owing to the extension of the septic process along the petrosal sinuses to the cavernous sinus.

11th. When extensive thrombosis exists, it does not seem necessary to remove the whole of the proximal and distal portions of the clot. This was illustrated more forcibly still by a remarkable case published by Mr. Parkin, of Hull, in the "Lancet" of March 11th, 1893. In that he found that the jugular vein was thrombosed beyond the lowest point at which he was able to ligature it.

12th. The same case showed very well that the presence of secondary foci of septic infection does not preclude the possibility of recovery, provided the further supply of septic emboli be stopped.

13th. However advisable it may seem to ligature the internal jugular vein beyond the limit of the thrombus, and perhaps to remove its proximal part, there is no evidence to show that the complete removal of the distal portion of the clot is necessary, or that leaving it produces any effect that is prejudicial to the health of the patient.

14th. In spite of the variations in the activity and character of the conditions which result from septic infection of the lateral sinus, it would seem that the most scientific and most certain measure to adopt in every case is—after performing antrectomy, which is a necessary antecedent of every operation of this sort—ligaturing the internal jugular vein, and clearing out the extradural abscess, to remove as much as possible of

the proximal portion of the clot, then the whole of the distal portion, or, if there be no thrombosis, to slit up the sinus beyond the limits of the abscess wall, and plug it with gauze and iodoform.

I cannot close this paper without again expressing our indebtedness to Mr. Horsley for his original suggestion, which has opened up such a large field for operative measures, not only in cases of septic thrombosis, secondary to middle-ear disease, but also, as I have shown, in similar conditions in other parts of the body, all of which had for so long been regarded by surgeons as hopeless, and were consequently relegated to the care of the physician, who, with all his skill, was unable to influence the course of events by drugs.

MR. HUGH E. JONES (Liverpool) followed with the following *Case of Septic Thrombosis of the Lateral Sinus*, in which he tied the internal jugular vein, and cleaned the clot out of the sinus, but death followed a week later from extension of the mischief to the opposite lateral sinus. ("Brit. Med. Journ.", p. 563.)

After a few remarks by the Chairman in praise of the concise way in which everything had been put before them in the papers.

DR. A. BRONNER (Bradford) drew attention to the great difficulty in diagnosing thrombosis of the lateral sinus. He mentioned several cases in which rigors and severe pain seemed to point to disease of the lateral sinus, and in which scraping out the middle ear or the mastoid cells at once removed the symptoms. It was, therefore, perhaps risky to at once open the cerebral cavity and puncture the lateral sinus. He thought it very remarkable that the opening of the cranial fossa and the puncture of the sinus, surrounded as they were by fetid pus, should not be more frequently followed by fatal results.

DR. ROBERTSON followed, and said he was sure they were all very much indebted to Mr. Lane for this almost, he might say, epoch-making paper with reference to the disease to which it referred. It would be something of an important event if it came to be the case that they were able, from the symptoms he had, to diagnose exactly the time when the dura became affected in cases of chronic suppuration of the middle ear.

DR. WALTON BROWNE next gave a brief history of a case of a young man in which two prongs of a fork two inches long penetrated in front of the tragus and passed downwards and backwards into the mastoid cells. The prongs were lodged for nineteen months and eventually successfully removed, their presence causing no serious symptoms.

Pilocarpin in Aural Affections.

DR. ELLIS read a paper by DR. G. Metcalfe, surgeon to the Newcastle-on-Tyne Throat and Ear Hospital, on "The Use of Pilocarpin in Aural Affections." In the course of it he said that pilocarpin was used in ear disease hypodermically and locally by introducing it through the Eustachian tube into the middle ear. In employing the hypodermic method one third of a grain was given daily until the case ceased to improve, but was discontinued at the end of a fortnight if there was no improvement. It was safer to begin with a smaller dose—one-tenth of a grain—and increase it rapidly to one-third of a grain. On receiving the

injection the patient either retires to bed until the perspiration has ceased, or lies wrapped up on a couch in a warm room for one or two hours. Sometimes a dose of sal volatile or other stimulant is previously administered to counteract cardiac depression, but is not usually necessary. In making local applications the Eustachian catheter was passed in the ordinary manner. Then his own method was to inject into the catheter, with a hypodermic or other suitable syringe, about six drops of a one in forty solution of the drug, and then to force it onwards by the air douche until it is demonstrated that a portion has arrived in the middle ear. These applications were made twice or thrice a week to each affected ear. The effect of the drug commenced and was most marked in the head, and thence extended downwards throughout the whole body. The local applications stimulated the parts to which they were applied.

It had been shown by Prof. Politzer, and confirmed by the observations of Drs. Barr, Field, Bronner and others that the daily hypodermic injection of one-third of a grain of pilocarpin cured certain cases of inflammatory syphilitic and haemorrhagic deposit in the labyrinth, especially when of recent and sudden occurrence, and when the tuning-fork was heard longer opposite the meatus than on the mastoid. These cases he believed to be exceptions. He quoted the following cases as instances of failure. ("Brit. Med. Journ., " p. 570, 1st col.) In old-standing syphilitic cases, and in cases resulting from meningitis, he had never observed the slightest benefit from pilocarpin medication.

Progressive sclerosis of the middle ear was not amenable to this remedy. In chronic middle-ear catarrh with co-existing internal deafness he had had many cases which improved slightly for a week or so under subcutaneous injections alone, but they afterwards relapsed and the continuation of the treatment was of no benefit. The majority of these cases were not in the least improved by pilocarpin hypodermically, though many of his patients received the injections daily for six weeks. The other method of using pilocarpin recommended by Politzer, namely, by injections through the catheter into the Eustachian tube and middle ear, had yielded him some favourable results in chronic middle-ear catarrh, either with or without labyrinthine symptoms, after routine treatment had failed. He injected into the catheter about six drops of a one in forty solution of pilocarpin, and then forced it onwards with the air-tag. A slight improvement in hearing-power very frequently resulted. When from Eustachian obstruction air entered the middle-ear with difficulty, after injecting the solution, air frequently passed freely and easily. This effect was immediate, and was probably due to the mechanical force of the fluid overcoming the obstruction. He was inclined to think that the results obtained in mixed middle-ear and labyrinthine cases by some observers who had used hypodermic injections and injections *per tubam* concurrently, had been brought about by the local applications to the Eustachian tube and the middle ear, and not to the subcutaneous medication. ("Brit. Med. Journ., " p. 570, 2nd col.) He thought that pilocarpin medication to the tympanum and Eustachian tube was often a useful method of treating chronic tympanic catarrh when routine treatment had failed. Pilocarpin drops, eight grains to the ounce, with glycerine and

water, applied to the external auditory meatus in dry conditions of the meatus and membrane, often afforded some relief, but he had never noticed any good effects when given by the mouth. There was a great difference between the action of different samples of pilocarpin. He had often found one-tenth of a grain produce free perspiration when in the same series of patients a quarter of a grain obtained from another source had produced no effect.

Dr. WM. HILL, in opening the discussion, said he believed he was the first to inject a patient in this country according to Mr. Field's method. It was a hospital patient, and he must say that at the end of three weeks there was a great improvement, so far as he could gather. Mr. Field's percentage of successes with pilocarpin injections, which appeared higher than most other observers, was probably due to careful selection, and from the fact that he had dealt with such a large number of cases. Dr. Metcalfe had done well to test the use of Eustachian injections through the catheter, apart from hypodermic injections. Mr. Field had used the two methods concurrently in the same patients, and it was impossible in any given case to say which method was responsible for the improvement. A large percentage of failures must be expected in the present imperfect state of our knowledge, but the question had been advanced a stage by Dr. Metcalfe, and the thanks of the section were due to him for bringing the paper forward.

Dr. WARDEN remarked that with regard to private patients they would not stand daily injections, and hospital patients often got out of the way and were lost sight of. He was sorry that Mr. Field was not there, because from what he (the speaker) heard, his expectations were rather giving way. (Dr. HILL : "No, I think not.") He thought the internal treatment was well worth trying, and he was trying it. He had seen beneficial effects in one or two cases.

Dr. MILLIGAN was pleased to hear Dr. Metcalfe's paper, and to learn that he had had successful results, but he was bound to say that his own experience of pilocarpin was decidedly disappointing. He had tried it in numerous cases, but the result had been such as not to warrant his persevering with the drug. He thought that in many cases where good results had been recorded the improvement was not so much due to the effects of the drug as to the regular catheterization and politzerization which had been employed at the same time. Such papers as Dr. Metcalfe's, however, were very valuable, as throwing light on the subject, and it might show that the drug was beneficial.

Dr. ROBERTSON corroborated what had been said.

Dr. ADOLPH BRONNER had tried pilocarpin subcutaneously in many cases. The most suitable were those of disease of the internal ear of recent origin, especially if due to syphilis. The internal use of pilocarpin did not prove very successful.

Mr. RICHARD ELLIS, in replying, agreed upon the whole with the conclusions arrived at on the paper. He had, he said, seen very many of Dr. Metcalfe's cases, and he was personally aware that Dr. Metcalfe had treated a very large number of cases by the pilocarpin method. He (the speaker) believed that a very large number of cases would derive as

much benefit from some of the old drugs—guaiacum, for instance, or full diaphoresis by the pack or Turkish bath.

The Surgical Treatment of Mastoid Disease and its Complications.

Prof. WM. MACEWEN, M.D. (Glasgow), introduced a discussion on "The Surgical Treatment of Mastoid Disease and its Complications." In doing so he said he supposed that the heading "Mastoid Disease," which had been put down for discussion, meant the extension of the middle-ear disease to the mastoid region, and that it included, for the most part, infective disease of the middle ear, and excluded tubercle and carcinoma. In the first place, with regard to the pathology of pathogenic infective disease, he found, as he had no doubt was the common experience, that the greater majority of these diseases travelled from the middle ear to the mastoid antrum and cells, and that they invaded, after destruction of the mucous membrane, the bone and dura mater, the membranes of the brain. In many instances, after erosion of the bone, masses of granulation tissue extruded themselves from the dura mater, which, on removal by absorption, prompted re-infections by a fresh surface coming into contact with the infective material pent up in the middle ear.

Speaking generally, he agreed with Schwartz in his recommendations as to the time that operations should be performed in infective purulent diseases of the middle ear, and in such cases the mastoid antrum and the mastoid cells ought to be thoroughly ablated. He then referred to the surgical anatomy of the mastoid region, pointing out the relative positions of the mastoid antrum, the sigmoid sinus, and the facial canal, and he showed that the safety zone lay in a space which he had operated in for the last ten years, and found that he was always successful in striking the antrum, and which he named the supra-meatal triangle. This triangle was free from the sigmoid sinus, and if one operated at the upper and external part of it, he was free from the facial canal. The facial canal lay at the floor of the passage between the antrum and the middle ear, and traversed the floor of this passage to the inner side. As a rule, by opening the antrum the attic of the middle ear was exposed by enlarging the opening, the osseous opening forwards. After exposing the attic the ossicles were removed, and the whole of the granulation tissue of the middle ear cleared out. After this was done the tegmen of the attic was scrutinized by an efficient light, and, if eroded, was freely opened up. The granulation tissue removed from the dura mater, and the brain laid bare, and, if necessary, opened into. The abscess in the brain could be tapped from this region, but it had also to be opened above in order to remove sloughs of cerebral tissue, which could not otherwise come away. The sigmoid sinus was likewise dealt with in cases where the disease had spread in this direction. In all these cases it was necessary to remove the focus of infective matter in the bone, and to cut off the parts by which they travelled from the brain, and therefore, although the opening might be made into the abscess from the squamous part of the temporal, the pathway by which the affection travelled into the brain would require also to be dealt with. With regard to the infective thrombus of the sigmoid sinus, he preferred to lay the

sigmoid sinus freely open, to turn out the contents, to separate the outer wall of the sinus, and to involute this membrane upon the inner walls of the sinus itself, retaining it in this position by means of abundant powder of iodoform and boracic acid, and also by iodoform gauze. He preferred this method to ligaturing the internal jugular, because the ligaturing of the internal jugular did not wholly arrest the infective matter from getting into the lungs as it passed by the large veins at the base of the skull, passing through the anterior and posterior condylar foramina, and so into the vertebral and subclavian. But there were cases where the internal jugular vein was involved, and in such a case he would advise the application of a ligature to the internal jugular.

With regard to the mastoid antrum, after having freely exposed the whole of the cavity and ablated its connection with the mastoid cells as well as the mastoid cells themselves, he did one of two things. If the whole of the disease was removed he stuffed the part and allowed it to heal by granulation tissue from the bottom, so that the masses of fibrous tissue formed in the spaces formerly occupied by the antrum and cells : or, where the disease in the petrous portion of the temporal bone had not been thoroughly evacuated on account of the depth of the situation and the intricacies of the passages in which it lay, in that case he preferred to keep a permanent opening between the petrous bone and the external part of the head behind the ear, and he did this by "papering" the passage by means of epithelium spread both from the middle ear and the skin without.

With regard to the results, he had operated upon eighty cases of mastoid disease alone, and in those where the disease had already been obliterated by the operation he found a permanent cure resulting, but in those where the disease had spread into the petrous portion it was necessary to keep this opening permanent, and there was in a good many such an amount of discharge. With regard to meningitis following upon infective disease of the middle ear, although at first he had had a doubt as to the propriety of operating where infective purulent meningitis had developed, he now had no hesitancy in performing such operations, and in the great majority of them he found very excellent results. The disease, although present to a marked extent, had been arrested by this. In cerebral abscess there was no difficulty about performing the operation. It was one of the most satisfactory operations that could be performed upon the head, because it was urgently required. They were taking away a pathological product, and the results were eminently satisfactory. With regard to sigmoid sinus he had to make a like remark, provided always that the case was got prior to implication of the lungs.

Prof. VICTOR HORSLEY followed. He regretted that he had only had the opportunity of hearing half of Prof. Macewen's address, but he might say that his experience of these cases coincided almost entirely with everything that had been said. He, however, wished to propose other points for discussion by the section. The first and most important, so far as the interests of the patient were immediately concerned when the case was one of simple otitis media purulenta, was the question of

how long effort was to be made by ordinary antiseptic treatment to get the cavity to heal up before the radical operation of clearing the tympanum and mastoid is undertaken. He suggested that one year would be a convenient limit, and that if the granulations had not subsided, and if cicatrization did not occur within that limit, the antrum of the mastoid should be laid open, and the opening continued into the tympanum so as to make one space of both cavities. In this way the grave risks to life of persistent discharge from the ear, such as blood-poisoning, destruction of the bone, blocking of the venous sinus, inflammation of the membranes of the brain, and cerebral abscess, could be avoided.

As the operation of opening the mastoid was unattended with any risk to life, it was obvious that the only possible drawback to undertaking a radical cure was the chance of damaging the hearing, which was, of course, already disordered. On this point his experience showed that the hearing was sometimes perfectly normal after the operation, was sometimes improved by the operation, and was sometimes to a certain degree diminished. It was, therefore, quite clear that the question of risk to the hearing was not an important one, and ought not to contraindicate the operation which is undertaken to remove the risk to life which these patients run.

In connection with this point he expressed his opinion that there was no advantage in leaving the stapes in position, and he quoted a remarkable case in which the tympanic cavity had been scraped out no less than three times, and in which, nevertheless, the hearing was perfectly preserved. After speaking of the value of prolonged drainage in bringing about a radical cure, and referring to the fact, also observed by Prof. Macewen, that the best results were obtained in cases where the bone of the mastoid region had been more attacked than the bone in the petrous portion, he proceeded to discuss the treatment of the facial nerve, and pointed out that where the nerve had been exposed by disease, twitching of the facial muscles if an instrument were passed across it would warn the operator of its proximity, and so avoid any accident to the nerve itself. In very distressing cases of the complete destruction of the nerve by tubercular disease, he believed there was some possibility of restoring it by nerve-grafting in a suitable case. He then passed to the dangerous complication of blocking of the venous sinus, and thought that in these cases the jugular vein should be ligatured in the neck to prevent the clot becoming loose, and cause embolism of the heart or lungs. The brilliant results obtained by Lane and Ballance showed the value of the measure, and the criticism that had been passed upon it from the point of view of the connection of the sinus with emissary veins had no foundation, because the clot in these cases often extended beyond the veins in question, and consequently he thought that the ligaturing of the jugular in such cases saved the patient. He agreed that in cases of abscess of the brain the cavity of the ear must be completely opened by the operation and disinfected, at the same time that the matter is let out from the brain.

After remarks by Dr. H. E. JONES—

DR. ROBERTSON said that, in listening to the operative *technique* referred to by both the professors, he had been somewhat disappointed at finding no mention of a very important method of opening the mastoid antrum described by Stacke. For those members not quite conversant with the exact position of these neighbouring structures, Stacke reduced, he thought, a great deal of the complications to a minimum. They knew that if the protector was introduced simply into the antrum, one or two of the most dangerous accidents could be successfully obviated. At any rate, they could never injure the facial nerve. Of course this operation of Stacke's was only applicable to chronic cases.

MR. RUSHTON PARKER thought it was desirable to fix upon some routine treatment, on which reliance could be placed, in cases of otitis media before resorting to operation. He practised and advocated the use of carbolized glycerine (one in twenty), as suggested to him by Mr. Pagan Lowe, of Bath, in preference to antiseptic injections, which could not act thoroughly before the mastoid opening was made, and tended to drive inwards without removing the septic agents and products confined in the lung cavity. If suppuration were not speedily checked by this means, especially if febrile symptoms supervened, he would advise early opening of the mastoid region by a small gouge. Even after successful opening of the mastoid region thus affected, the febrile symptoms sometimes continued several days before disappearing altogether. In dealing with lateral thrombosis, he appreciated highly Prof. MacEwen's proposal, not necessarily to tie the jugular vein, substituting local occlusion by exposure and plugging, but he must remind the section that such ligature was advisable if the thrombus extended into the neck.

DR. WM. HILL showed a number of specimens of the temporal bone, prepared some by Mr. Jackson Clarke and some by himself, which bore out many of the anatomical points raised by Prof. MacEwen. In most of the specimens the postero-supero-meatal triangle could be well seen, and when this portion of the bone was removed, as in some of the bones shown, the temporal antrum was found at a variable depth beneath.

DR. MILLIGAN thought that the tympanic attic should be opened up and explored in those cases of chronic suppurative middle-ear disease at the same time as the antrum is opened. The attic formed such an admirable space for the production and propagation of the septic material that it should be the surgeon's aim to thoroughly cleanse it of all its putrid contents. If necessary, removal of diseased ossicles should take place at the same time. The hearing process in such cases was sometimes remarkably benefited, especially with regard to the power of appreciating conversation. The method advocated by Stacke of dividing the posterior meatal wall and folding the flaps backwards into the cavity of the bone formed during the process of opening the antrum was useful. He thought that in all cases where the intra-cranial abscess was diagnosed and operated upon, the mastoid antrum should be opened at the same time. In all chronic cases the antral mucous membrane was affected, and, unless the part was cleared of disease, recurrence might quite possibly take place.

THE CHAIRMAN, after expressing his appreciation of addresses and

discussion, said Mr. Victor Horsley had touched upon one point that was especially interesting, and that was the time for performing operations. He (the speaker) also asked them to consider how far these attacks of influenza affected the time movement, and went on to say that the teaching of the German schools should be balanced. The Germans now, especially in the Berlin school, looked upon the mastoid antrum as a thing to be opened. He thought that they as British surgeons seemed inclined to strike a balance between that and too-long-delayed operations.

Prof. MACEWEN, replying to Mr. Victor Horsley, said that in the first place there was a difficulty in being quite sure of the position of the facial canal in cases of sclerosed mastoid. In ordinary cases, however, the facial canal was well-marked, and especially relatively to the tissue by which it was surrounded. The twitching of the facial nerve produced by the touch he always asked the chloroformist to watch for, and advise him at any time that such occurred. In this way the operation was a marked advantage. The dressings he usually applied on the operating table, and the parts were not again touched for a fortnight, or sometimes three weeks, unless there was some cause, such as high temperature or discharge.

Friday's Proceedings.

On the chairman (Mr. H. BENDLACK HEWETSON) taking the chair on Friday morning, a demonstration was given and discussion opened by Dr. MACINTYRE on the *Pathogenic Organisms of the Upper Respiratory Tract, with special reference to Diseases of the Naso-Pharynx and Ear.* He afterwards opened a discussion on the *Etiology of Diseases of the Naso-Pharynx and Ear, with special reference to the Bacteriology of these regions, and its importance in Treatment.*

The demonstration consisted of a large series of drawings and photographic slides, illustrating the principal organisms which have been found in the upper respiratory tract. Specimens were shown illustrative of the parasitic or saprophytic organisms which are considered non-pathogenic. A large number of drawings were also shown of those which are now accepted as pathogenic. Sections were also shown, demonstrating the passage of micro-organisms from the surface to the interior of the body, with the subsequent development within.

In introducing the subject, Dr. Macintyre said the discussion was more or less limited to the pathogenic forms, but without a knowledge of the ordinary bacteria no progress can be made in the life-history of those organisms which it is our special function to consider. Further, no sooner has one embarked upon the study of the pathogenic organisms in this or any other part of the body than he is confronted with the question, What are pathogenic forms? The difficulties in this way were great, and the state of our present knowledge quite insufficient, because it was evident that some organisms, apparently parasitic and quite harmless in the host, may under altered conditions of the surroundings or life-history produce products of a destructive nature. Further, it has even been suggested that some organisms are perfectly harmless in the

body until others are introduced, and, conversely, some organisms when introduced into the body were rendered less powerful by the introduction of other forms, or even the products of other forms. It was for this reason that in the demonstration which he had given the non-pathogenic as well as the pathogenic organisms had been exhibited. While a large number of apparently harmless organisms can be found in the nose, mouth, and throat, it could not be said that many of the pathogenic organisms are to be found in these parts of the body in health. The mouth was perhaps the most interesting in consequence of the number of organisms being numerous. This fact can be explained by the very many different things containing organisms which must naturally pass through any part of the alimentary canal. This was an important part of treatment, because, owing to the number of accessory cavities in the region of the nostrils (where microbial organisms might lodge), it was absolutely necessary in making wounds in the region to attempt as far as possible an aseptic condition. The paper was divided as follows :—

1. The consideration of the principal micro-organisms of interest to ear surgeons.

2. A reference to the affections which in all probability will be ultimately classified as bacteriological in origin.

3. Indications for treatment.

In connection with the first heading, the causes which favour the development of the different organisms were considered, as well as the forms which had been found in different pathological states. Special reference was made to those found in inflammation, the suppurative processes, erysipelas, diphtheria, and others representing the acute forms of disease. Reference was also made to the causes of affections such as tubercle, syphilis, rhinoscleroma, and other diseases of a chronic nature.

In the second place, the effects of such diseases as measles, scarlatina, gout and rheumatism upon the mucous membranes of the naso-pharynx and middle ear were carefully considered. Lastly, the indications for treatment were gone into, special reference being made to the best methods for obtaining as far as possible aseptic conditions in the nose, mouth, and accessory cavities.

The discussion on Dr. Macintyre's paper was opened by Dr. W. ROBERTSON. He might say that it was well-nigh impossible in the time they had to do justice to the excellent and elaborate paper that had just been read by Dr. Macintyre. He had rightly remarked that they knew nothing, or, at any rate, very little, of the manner in which such diseases as scarlatina brought about the implication of the middle ear. It was just possible that these general diseases reduced the energy of life and the natural immunity of the organ, and in this way pathogenic organisms floating about gained an entrance through the part which had been impaired by general disease. They knew that, amongst other things that were classed under immunity, the unbroken epithelium of the mucous membrane offered much obstruction to the increase of any kind of germ, but, unfortunately, it turned out that such germs as diphtheria and tubercle had the power of in some way bringing down the energy, and in this way they could get in. Dr. Robertson went on to refer to the

remarks of Dr. Macintyre as to germs of disease being difficult at times to find, and then dealt with the surgical aspect of the question. He could only join with others in thanking Dr. Macintyre for the great trouble he had taken in exposing those beautiful specimens, which were an education in themselves, and for the extreme trouble he must have taken to bring such an exhaustive paper before the section.

Dr. R. ELLIS could not refrain from expressing his admiration of the enthusiasm that had prompted Dr. Macintyre to bring this splendid paper. The work shown in it must have been immense, for it teemed with points of interest, and he would like to have the paper to study for a week. There was one point he might refer to, arising out of Dr. Macintyre's remarks, and it was a matter of great importance. He quite agreed with the writer of the paper that it would be better if they had means of getting specimens examined and verified : it would be better for practitioners, and better for patients. If it could be done, the sooner it were done the better, for it was very important.

Dr. MACKENZIE also paid a tribute to the work of Dr. Macintyre.

Dr. WARDEN believed that Dr. Macintyre's name would go down to posterity as the originator of this splendid subject. There was no doubt whatever in his (Dr. Warden's) mind that the time would come when this theory, more than a theory, would be adopted universally. He had no doubt this was the beginning of one of the greatest discoveries that had ever taken place, and he could not express his feelings too strongly in thanking Dr. Macintyre for his splendid achievement.

Dr. MILLIGAN said that the importance of examining purulent discharges from the ear for tubercular bacilli was of great value, both from a theoretical and clinical point of view. That bacilli were difficult to find in such cases he admitted, but suggested that examination of the granulation tissue proved at times more fruitful of discovery. He considered that in tubercular disease of the middle ear early involvement of bone was more frequent than in non-tubercular cases, and that consequently more radical forms of treatment should be resorted to.

Dr. BRONNER said he would like to call attention to the good work they had done in the otology section during the three days' meetings. They had had Dr. Macintyre's paper that day, which had been most instructive and of great scientific value ; on the previous day they had papers of great surgical importance, showing when they ought to interfere. The work they had done would compare favourably with any other section of the meeting, and proved that special sections could be of very great importance, not only to specialists, but to the general practitioner.

The CHAIRMAN briefly spoke, after which Dr. Macintyre replied.

Prof. GIAMPIETRO.

One of the visitors to the section was Prof. Giampietro, of Naples, whose appearance was greeted with applause. He presented a paper on *The Dangers and Limitations of Politzer's Method*.

The CHAIRMAN, addressing the professor in French, gave him a hearty welcome to England, and to the meetings of the Medical Association.

Professor GIAMPIETRO, who also spoke in French, thanked the Chairman for his kindly remarks. He would have been most happy to have joined in, and taken part in their discussions on the very important subjects which had been under their notice, but he did not understand the English language. He had, however, written a paper in his own language, which conveyed his ideas on one or two of the topics they had discussed. He would, for his part, rejoice to see the time when there should be brought about a congress of doctors, having for its object the advancement of their science, interchanging opinion in one language, and so helping to make medical men into one large family.

Dr. BRONNER, addressing Prof. Giampietro in French, said they had listened with pleasure to his remarks. The paper which had been written would be read with pleasure, and the suggestions made would be heartily approved by those who had heard them.

Dr. BRONNER's paper on *Notes of Sixty Cases of Diseases of the Mastoid Process, in which the Antrum was Opened*, was taken as read. The paper stated that as regarded the method of operating there could be little doubt that the method described by Schwartz was by far the best. The skin over the mastoid process was shaved and disinfected, and a vertical incision was made down to the bone behind the attachment of the auricle and extended to the apex of the mastoid process. The periosteum was then cut through and detached, and the edges of the wound drawn back by hooks. The bone was exposed and carefully examined to see if they could detect any fistula or small area of diseased bone. If that were the case, the opening was enlarged with the sharp spoon to such an extent as to permit of the introduction of the finger, with which they could feel if there was any loose bone. When there were no external signs to guide them, they made an opening in the bone behind the upper margin of the external meatus. Thin layers of bone were removed, the direction of the opening being downwards, forwards, and inwards, and in most cases they reached the antrum or at least some mastoid cells. They then tried to open up a free communication between the middle ear and antrum. It was, however, of importance to know when they should operate. In these cases they could not do better than again carefully follow the indications suggested by Schwartz; where there was any doubt as to whether they should operate at once or wait, the best plan was to operate. They could not do very much harm by operating too soon, but they might risk the life of the patient if they waited too long.

Votes of thanks to those who had officiated brought the meetings of the section to a conclusion.

SOCIETY MEETINGS.

SOCIETY OF LARYNGOLOGY, OTOLOGY, AND RHINOLOGY OF PARIS.

Continuation of Dr. LICHTWITZ's Paper on Latent Empyema of the Frontal Sinus. (From p. 358.)

An illustrative case occurred in a man of thirty-eight, who complained of headache, various nervous disturbances, and of obstruction of the left nostril, with a purulent discharge having a foetor of which the patient was himself conscious. There were several bad teeth, and the symptoms suggested antral empyema. Exploratory irrigation brought away some pus. After a time the lotion came away quite clear, but the nasal suppuration continued. A number of polypi were removed from the neighbourhood of the infundibulum, but it was only when irrigation of the frontal sinus was practised that relief was procured, as a quantity of muco-pus was washed out. The emptying of the sinus was more thoroughly effected by the blowing in of air through the canula than by the injection of liquids. The process was repeated twice or thrice a week, and as long as this was continued the pain was kept in abeyance.

For diagnostic purposes this method of exploration has many advantages over the external trepanation of the sinus. As regards its therapeutic value this much will be allowed, namely, that its use should precede more serious procedures, which should only be adopted when it fails. The natural orifice is most favourably situated for the escape of the pus. The operation of opening the sinus from without is not a slight one, it is apt to be followed by erysipelas, and the fistula may have to be kept open for several months.

Dr. SAINT-HILAIRE, who had seen Dr. Lichtwitz practise the catheterism and irrigation of the frontal sinus, made trial of the method on some anatomical preparations, and found that it was possible with a properly curved probe to enter the upper part of the infundibulum, and even the canal of the frontal sinus. He was able, by means of variously bent catheters, to inject water into the sinus on the cadaver, but in the living patient he found the middle turbinal an insurmountable obstacle. With Lichtwitz's catheter the fluid entered the sinus, or, at any rate, the patients always felt the sensation as of something reaching the middle of the forehead. He promised to prosecute his researches in this direction.

Dr. POTIQUET doubted whether Lichtwitz's instrument could enter the sinus, as he did not think it was sufficiently *coudé* to pass beyond the attachment of the middle turbinal. He thought Bresgen's canulas were more suitable in many cases, and that many supposed suppurations of the frontal sinus were really instances of ethmoiditis.

Dr. LOEWENBERG.—*Contribution to the Semeiology and Treatment of Catarrh of the Eustachian Tube.*

When in the course of an aural catarrh the affection is confined to the

Eustachian tube, viscous mucus collects in the orifice, and masses of this substance are readily displaced so as to plug the tube, producing sudden increase of deafness, or, on the other hand, they may escape into the pharynx with the result of immediate improvement. *The sudden variations in hearing-power* which so frequently occur in catarrh are often explained by these occurrences. This plugging of the tube during the process of catheterization has been recently observed by Loewenberg, and is recognized by a sudden cessation of the passage of air. To remedy it, he pushes the tip of the catheter as far as possible into the tube by pressing the stem against the septum, then introduces the tip of a compressed Politzer-bag or syringe, and practises suction. Mucus is thus drawn into the catheter, which is then extracted and cleared. To save removal of the catheter each time, its point may simply be turned into the naso-pharynx, and the mucus may be blown into that space. This is, however, rather unappetizing, and does not permit of the examination of the material. The replacement of the catheter is much facilitated by the method described at a recent meeting of marking the stem of the instrument at the place corresponding to the tip of the nose when *in situ*.

It may in the future be possible to withdraw mucus from the tympanum by this method, so as to render unnecessary the recourse to the operation of paracentesis, or the use of the koniantron, which is now almost abandoned.

Dr. A. COURTADE.—*On the Methods employed for the Withdrawal of Pus from the Tympanic Cavity, and especially the Aspiration of Pus.*

The necessity for removal of pus being accepted as especially urgent in a cavity of the anfractuous character of the tympanum, and one having such important anatomical relations, the question of the relative appropriateness of the various methods arises.

The methods employed for the removal of pus are :—

The air-douche.

The injection of fluids { through the external meatus.
 directly into the tympanum.
 through the Eustachian tube.

The application of dry dressings.

Aspiration { through the external meatus.
 through the Eustachian tube.

Compression of air in the external meatus.

The *air-douche* for the successful removal of pus postulates a perforation of considerable size. Valsalva's method is sometimes useful, but often fails from deficient pressure, and from its causing congestion, and thereby narrowing of the tube. Politzer's method is very efficacious when the perforation is low down, and the pus is not too viscid. It has little effect in removing pus in the posterior regions. When it fails through the nose it sometimes succeeds through the meatus. It is certain that masses of inspissated pus, of cheesy or epidermic material, are little influenced by the blast, and this is true also of exudations in the areolar tissue between the neck of the malleus and the upper part of the

outer wall of the tympanum. The catheter should not be used unless Politzer's method fails.

Injection of liquid is only of real benefit when employed with skill. In ordinary hands it has only the effect—beneficial enough—of removing the pus which has passed out into the meatus. If simple syringing is insufficient, Hartmann's canula, or its equivalent, must be used if permitted by the patency of the meatus, the size of the perforation, and the docility of the patient. If this is impracticable, irrigation may be practised through the Eustachian tube. If the perforation is not large, free and favourably situated, this procedure is apt to cause severe tension and vertigo. Its effect is favoured by the simultaneous use of aspiration through the meatus by means of Siegel's speculum or a syringe. Various conditions may interfere with the use of the catheter, and in any case it leaves untouched the isolated collections in the upper part of the tympanum.

Dry dressings.—The method of absorbing the pus by means of cotton-wool is only applicable when the fluid is very thin and escapes easily into the meatus, and when injections keep up the suppuration or are badly borne. It is contra-indicated when the pus is fetid or very thick, or when the walls of the meatus and tympanum are very irritable.

Aspiration through the meatus by means of Siegel's speculum is practised for several purposes:—

1st. As a means of diagnosis enabling one to judge of the total or partial mobility of the membrane, the posterior and laxity of adhesions atrophic or cicatricial thinning of the membrane, its immobility, etc.

2nd. As a therapeutic process for mobilizing a thickened or adherent membrane, and with it, to a certain degree, the ossicular chain.

3rd. As an accessory means of intervention in acute median otitis, and this is the indication here chiefly insisted on, and it may be used after the formation of a perforation, or may be preceded by a paracentesis. A case is narrated in which all operative procedure was refused, but relief from excruciating pain was afforded on several occasions by the use of aspiration.

The technique of the operation.—The glass of the speculum must be warmed, and a good syringe is adapted to the end of the india-rubber tube. This is gradually opened, and the effect is watched through the speculum, care being taken not to aspirate with such sudden force as to draw blood. The pus in the meatus is then removed with absorbent wool.

The process is indicated in the same cases as the air-douche, but in which the latter is insufficient. It acts on the various parts untouched by the douche, and can be used for the removal of the residue left after inflation. The contra-indications are intact membrane or a too minute perforation, too great viscosity of the contents, and tumefaction of the soft parts lining the meatus. Many of these are obviously susceptible of removal by appropriate means. It is desirable that the Eustachian tube should be fairly patent, so as to avoid extreme suction.

Aspiration through the Eustachian tube is only practicable by means of such a fine tube as to become blocked at once by pus of any thickness.

Compression of air in the external meatus has been recommended by

Lucae for the expulsion of pus through the Eustachian tube. It is objectionable on account of the frequent narrowing of the tube, and of the tendency to drive irritating materials into the mastoid cavities. It is also apt to lead to unpleasant labyrinthine symptoms.

Conclusions.—Each method has its place. It is best to commence with the most simple and efficacious processes, and aspiration seems to possess these qualities in the greatest degree.

PRACTITIONERS' SOCIETY OF NEW YORK.

Meeting, March 3, 1893. ("Med. Rec.", April 8, 1893.)

ROBINSON, BEVERLEY (New York).—*Abductor Paralysis of Vocal Cords—Tracheotomy.*

Mr. R., aged thirty-three, clerk, admitted to Dr. Robinson's wards March 25th, 1892, Dr. Hollis, house physician. One sister died of phthisis five or six years ago, having had a cough for eighteen months. Since then a brother has been living in a mild climate on account of "weak lungs." Patient lived in very close companionship with these two members of his family, but his own trouble antedated theirs several years. No family rheumatic history, but patient had two severe attacks of acute articular rheumatism, the first seventeen years ago, the next two years later, each time with cardiac symptoms. Has always been short of breath on exertion. No specific history.

Formerly accustomed to use his voice excessively. About ten years ago, after more severe use of voice than usual, contracted a severe cold, with apparently an acute laryngitis, was very hoarse, had intense soreness of throat, aggravated by talking, with some dyspnoea. The cough and soreness subsided in a few days, leaving considerable difficulty in phonation, and also in inspiration, which has persisted ever since. Has been able to do more or less work, though difficult inspiration and phonation have been growing gradually worse, until three weeks ago, when, without assignable cause, they became very much worse than formerly, making it almost impossible to sleep, as breathing requires strong voluntary exertion. The difficulty is increasing. During early years of the trouble there was some pain, localized about centre of sternum. None recently. There has always been moderate expectorant cough.

Light diet. In bed most of the time. R. Hydrarg. bichlor, gr. $\frac{1}{100}$, q. 2 h. Turp. and soap lin., equal parts, applied on cloth to neck. Continuous steam inhalations of tr. benzoin co., drachm 1 to each pint of water. Codeine, gr. 1, q. 4 h. One dose sod. brom. and urethan ($\frac{1}{2}$ to 1 drachm).

March 26th.—Scarcely sleeps any. R. Sod. salic. and pot. cit., $\frac{1}{2}$ gr. xx., q. 4 h. No underlying physical condition has been found to account for condition of throat. The inhalations give a little temporary ease. Urine ac., tr. alb., no sugar; microscopical examination negative.

March 27th.—Condition practically unrelieved last night. Tracheotomy decided upon to relieve urgent symptoms, dyspnoea being confined to inspiration, due to paralysis of abductors. 2.35 a.m. After chloroform narcosis established, patient stopped breathing; face very blue before relieved. Trachea entered just below cricoid cartilage, a trifle to left of median line. After introduction of tube, breathing re-established by artificial respiration and inhalations of ammonia. Considerable cellular emphysema. Much difficulty in retaining tube in place on account of its inadequate size. Condition of patient very precarious for some hours after operation. Practically comatose for rest of night. Responded somewhat to free hyp. stimulation. By 8 a.m. began to show signs of consciousness, and improved from then on.

April 1st.—Condition much improved. Can sleep undisturbed. Wound doing well; tube requires much attention. Treatment stimulating and sedative. Sod. salic. and pot. cit. stopped. Listerine mouth wash. Rx. Tr. nux. vom., M. v., a.c. mist. Reynolds' drachms 2 p.c. There is little or no reddening of vocal cords to-day; the epiglottis is less congested during phonation and ordinary respiration. When tube is stopped there is very slight movement of right cord. None on the left. Rx. Mist. pot. cit., drachms 3, q. 2 h. when awake.

April 3rd.—After examination of larynx, Dr. R. P. Lincoln agrees with diagnosis of abductor paralysis, without knowing what the cause in this case is, nor could he suggest any other than present treatment except the possibility at a remote period of substituting intubation for tracheotomy tube. Took rather a serious view of outlook. Urine alk. 1016—mic. neg. Patient allowed out of doors. Daily dressing.

April 15th.—Rx. Pot. iod., grs. v., t.i.d.

May 20th, 1892.—Subsequent treatment simply directed to healing of wound, which is in good shape. After several trials, fitted with tube with fenestra well back. Wears a cork in the daytime, which is left out at night. Tube has only narrow flange. Patient comfortable, general condition good. No improvement locally.

March 11th, 1893.—Patient has worn his tracheotomy tube with comparative comfort from the period he left the hospital until the present time. His larynx remains always in the same state. His general condition has been usually good. Occasionally he has had acute attacks of dyspepsia, which he is inclined to believe are in some way connected with the presence of the tube. The question has arisen several times whether or not it would be safe to take out the tube and see if the patient could live without it. It has been decided that it would be unsafe to do so, unless some operation could be suggested which would prevent the vocal cords from approximating toward the median line during slightly forced inspiration. I now present my patient to the members of the Society, in the hope that some practical suggestion may be offered which can be carried out without great risk, and which would enable him to get rid of the tube permanently. I have not thought favourably of intubation because I do not see in what manner it could be beneficial for any lengthened period, and in any event I do not believe a cure could be obtained in this manner. To attempt any surgical interference through

the mouth, such as cutting away a portion of one or both vocal cords by means of some specially devised instrument for this purpose, does not appear justifiable in view of the uncertainty of the results to be thus effected, and with the certainty that the voice would be greatly impaired, or even lost. Indeed, I know of no case on record in which such an operation has been actually performed with any great or ultimate benefit. One specialist of this city has informed me that he performed an operation of this kind with temporary benefit, but he lost sight of the case later on, and could not tell me definitely as to its final outcome. Can any external operation be suggested which shall prove of real benefit to the case, or must my patient resign himself to wearing his tracheotomy tube indefinitely?

Note.—Upon further examination of Dr. Robinson's patient, Dr. C. L. Dana stated that there was unquestionably present an ocular defect of the left eye, of the nature of a monoplegia, which probably dated back many years, and was doubtless closely connected with the paralysis of the abductor muscles of the vocal cords. This fact, in his judgment, pointed to the seat of the primary lesion being in the central nervous system and rendered the case one of unusual interest, possibly unique, so far as he knew, looked at from this double standpoint.

Dr. McBURNEY thought that a sub-hyoidean laryngotomy offered a chance of ameliorating the patient's condition and making it possible to get rid of the tube. He recommended such an operation, and he explained to the members of the Society the manner in which he would proceed so as to bring about a condition such that the vocal cords would no longer come together during forced inspiration. He did not regard the operation as a very risky one, and thought it preferable to allowing the patient to continue longer wearing his tube and running the grave chances involved in his present state. He thought a plastic operation could be done which would keep the vocal cords apart, but he would wish to see the patient more than once before passing an opinion.

Dr. ANDREW H. SMITH said he once had a patient with apparently this condition, necessitating tracheotomy and the wearing of a tube. He was then put upon antisyphilitic treatment, and apparently recovered the use of the vocal cords, so that Dr. Smith was led to take out the tracheotomy tube, but unfortunately in a short time the man was suddenly seized with dyspnoea, and died before relief could arrive.

NEW YORK PATHOLOGICAL SOCIETY.

Meeting, March 8, 1893. ("Med. Rec., April 29, 1893.)

Dr. ROBERT C. MYLES.—*Malignant Tumour of the Tonsil.*

The author exhibited a portion of a tonsil which he had removed from a woman seventy years of age. There was an enormous malignant growth, probably a sarcoma, in the throat, connected with it, and the

patient was unable to swallow. In removing such large growths the great danger is from haemorrhage, but in this case the removal was rapidly and successfully effected by using a No. 18 platinum wire with a powerful galvano-cautery battery. It is necessary for this particular work that there should be an abundance of current at the disposal of the operator.

NEW YORK COUNTY MEDICAL ASSOCIATION.*Meeting, April 17, 1893.*

Dr. EDWARD VON DONHOFF.—*Adeno-Sarcoma of the Neck.*

The author presented what presumably was an adeno-sarcoma, removed in several pieces from the clavicular region of the neck and anterior mediastinum. The operation was successful, although he thought he might have been afraid to undertake it had he known beforehand, as he learned afterwards, that a surgeon had refused to operate upon the woman in his private hospital because of the danger.

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ON THE THERAPEUTIC VALUE OF THE
HYDRO-CARBONS IN GENERAL, AND ESPECIALLY OF
THE "VASOGENES KLEVER,"*

With Special Reference to their use in the Treatment of Diseases of the Respiratory Organs, and particularly of Tuberculosis.

By Dr. BAYER, of Brussels.

(Communicated by WM. ROBERTSON, M.D., Newcastle-on-Tyne.)

PERMIT me, gentlemen, to speak to you for a short time of a new medicament which has in fact an old remedy for its base, and the use of which goes back to a great antiquity. It was known of old in India and Persia, and among the Phoenicians and Egyptians, but during the course of centuries it has been completely lost. I intend to speak of the hydro-carbons, which I present to your notice under the form of vasogenes.

I discovered this medicament in the course of experiments which I made with various excipients, for the application of curative substances to the mucous membrane of the respiratory passages, being not at all satisfied with the various aqueous solutions, nor with the powders, and even less with the oleaginous substances, with the exception of liquid vaseline, which has already realized a great success. The vasogenes are prepared by Mons. Klever, of Cologne, one of my patients, who has made them known to me.

I have experimented with them now for from two to three years, and believe it only right to publish the results obtained. But before entering

* Paper read at the Third Annual Meeting of the Laryngologists and Otolologists of Belgium, June 4, 1893.

on the details of my experiments it will be useful to say a word on the chemical character of these products.¹ "The vasogenes are nothing else than hydro-carbons impregnated with oxygen." The combination of hydro-carbons with oxygen is, however, not a new thing: but what we are dealing with is not a complicated chemical combination, but rather a very simple process which we shall know presently. I must first mention that the different hydro-carbons found in commerce under the names of solid and liquid vaselines, produced from the residuum of naphtha in the American distilleries and refineries, are not by any means pure, and it is not so very long ago that chemists did not know what to do with the different ingredients contained in these products.

They were treated in the analytical works as refuse till the publications of Hell and Meidinger placed beyond doubt that the petroleums contain constantly acid combinations, called "acids of petroleum." Indeed, some of these have been isolated, having the formulæ $C_{11}H_2O_2$ or $C_{11}H_2O_F$. Afterwards there resulted from the works of Engler and Bock on this matter the probability that the hydro carbons contain ordinary fatty acids besides the naphtho-carbonic acids. The experiments relative to this conclusion have demonstrated that by the passage of air, and therefore of oxygen, through warm mineral oil, deprived completely of acids, a tarry product strongly acid is obtained, from which butyric acid can be separated by distillation.

The ordinary mineral oils absorb oxygen from the air at a medium temperature, and it is thus that Schestopal found, even after some days in petroleum exposed to the air, a strongly acid reaction: the corrosion of metals by the best refined mineral oils must be attributed to this absorption of acid. In the experiments of Zaloziecki the heavy oils were distilled in a current of oxygen, and the product had the piquant odour of fatty acid strongly marked. At a temperature above 350° a spontaneous destructive explosion took place. Zaloziecki explains this formation of acid by the oxidation of mythol groups, producing carboxyl, and supposes that the principal contents of mineral oils—the hydro-carbons of the saturated series—undergo this transformation.

According to the same author the lactic alcohols are also produced, these having their origin probably in the oxidation of part of the hydro-carbons.

The acidity of the mineral oils, and in particular of the purified products of distillation, arises, it is said, chiefly from the presence of lactic alcohols, but they also contain mercaptans and other organic sulphurs, produced by the oxidation of the sulphur acids, according to Zaloziecki. Engler says that the mineral oils in addition contain oxygen in the form of resinous and bituminous matters. The increase of acid in the hydro-carbons, as a result of this treatment, by an air current and a high temperature is without doubt considerable, and arises not only from the presence of lactic alcohols, but also from fatty acid and organic sulphur acids. Prof. E. Donath has shown these interesting results and their history in a leading article in No. 35 of the "Chemiker Zeitung," 1892.

¹ I owe this information to Mons. Klever, who has been kind enough to communicate it to me.

It results from the foregoing that, in effect, the possibility of a combination of oxygen with the so-called hydro-carbons is due to the presence of naphtho-carbonic acids of mercaptans and of sulphurs. It is evident that oxygen of any kind, whether of the air, of gas, or of liquids, or minerals, and in particular of the different alkalies, reacts on these elements, for which it possesses a great affinity, and combines with them.

However, this does not prevent the doubt remaining, whether a chemical combination takes place in reality with the entire body of the hydro-carbons, or whether after the introduction of the oxygen it should not be regarded as an intimate mixture—a sort of free combination of the pure hydro-carbons with the molecules of oxygen.

All the products of the oxygenated hydro-carbons up to the present appear to favour this last supposition. Already, in 1890, at the Universal Exposition at Paris, the oxygenated hydro-carbons soluble in water, of a Belgian inventor, with good reason attracted general attention, so that Prof. Lunge, of Zarich, a member of the jury in that class, profited by the occasion to describe these oils in the "Zeitschrift für angewandte Chemie," No. 42, 1890. These oils, when the jury examined them, were yet homogeneous and completely soluble in water, but already, towards the end of the Exposition, the oxygenated parts had separated from the other pure hydro-carbons, and the oils did not emulsify any more. The same thing happened with the other oxygenated hydro-carbons, which appeared afterwards in commerce: they preserved only for an uncertain time their emulsifying property, and the oxygen in excess seems to have again escaped.

On the other hand, all experiments have demonstrated that an oxidation which has taken place in presence of alkalies, even in very small quantity, has augmented their acidity to an extraordinary degree: however, even hydro-carbons oxygenated in presence of a small amount of alkali, up to the present, keep only for a certain time without losing again the oxygen necessary for emulsification.

This is about all the information I have been able to obtain from chemical literature relative to the products in question, to which belong equally the "Vasogenes Klever." But before speaking of the results, permit me to throw a glance on the general value of hydro-carbons.

The knowledge of these goes back to very ancient times (in Persia, India, &c.), and they played a great rôle in therapeutics, as we shall see in due course. They were employed in surgery, medicine, dermatology, gynaecology, ophthalmology, and above all, it appears, in the treatment of the respiratory organs. Everything tends to make us suppose that the treatment of tuberculosis with the ancients was based on this principle; at all events, considering the clearness of their observations and the great reputation of the ancients in therapeutics (for instance, the Egyptians), their use by them is to me not the least testimony in favour of the medicinal value of these substances.

C. Pliny, in his researches, describes the hydro-carbons under the names of "Bitumen, Maltha et Naphtha" (Lib. II., c. viii. c. ix.: Lib. XXXV. li.). He speaks of three sorts of hydro-carbons, viz., the heavy oils, the light oils, and the essence (naphtha). This is what he says:—

“Et bituminis vicina est natura (he has just spoken of sulphur)
 “alibi limus, alibi terra : limus e Judaea lacu, ut diximus, emergens,
 “terra in Syria circa Sidonem oppidum maritimum. Spissantur haec
 “utraque, et in densitatem coēunt. Est vero liquidum bitumen sicut
 “Zacynthium et quod a Babylone invehitur. Ibi quidem et candidum
 “gignitur. Liquidum est et Apolloniaticum, quæ omnia Graeci
 “pissasphalton appellant, ex argomento picis et bituminis. Gignitur
 “etiam pingue liquorisque oleacei, in Sicilia Agragantino fonte inficiens
 “rivum. Incole id harundinum paniculis colligunt citissime sic
 “adhaerens. Utuntur eo ad lucernarum lumina olei vice: item ad
 “scabiem jumentorum. Sunt qui et naptham bituminis generi adscribant.
 “Verum ardens ejus vis ignium naturæ cognata procul ab omni usu abest.”

They were afraid of naphtha. So much for the natural history of the hydro-carbons.

In the following passage, Pliny gives a description of their pharmacodynamic qualities :—

“Bituminis probatio ut quam maxime splendeat, sitque ponderosum
 “ac grave: leve autem modice, quoniam adulteratur pice (this relates
 “to the specific weights of heavy and light oils).

“Vis quæ sulphuris sistit, discutit, contrahit, glutinat. Serpentes
 “nidore fugat ascensum. Ad suffusiones oculorum et albugines Baby-
 “lonium efficax traditur: item and lepras, lichenas, pruritusque corporum
 “Omnia autem ejus genera incommodos oculorum pilos replicat (trichiasis,
 “etc.). Dentium doloribus medentur simul cum nitro illita. Tussim
 “veterem (chronic bronchitis, tuberculosis) et anhelitus (asthma) cum
 “vino potum emendat.

“Dysentericis etiam datur eodem modo, sistitque alvum. Cum aceto
 “vero potum discutit concretum sanguinem et detrahit (a dissolvent and
 “reabsorbent!) Mitigat lumborum dolores, item articulorum. Cum
 “farina hordacea impositum, emplastrum peculiare facit sui nominis.
 “Sanguinem sistit. Vulnera colligat. Glutinat nervos. Utuntur etiam
 “ad quartanas bituminis drachma, et hedyosmi pari pondere cum myrrhæ
 “obole subacti. Comitiales morbos ustum deprehendit. Vulvarum
 “strangulationes olfactum discutit cum vino et castoreo. Procidentia
 “sedis suffitu reprimit. Purgationes feminarum in vino potum elicit
 “(as an emmenagogue), etc.”

Celsus also speaks of the therapeutic properties of bitumen :—
 “Bitumen concoquit et movit pus”: Bitumen discutit.

Hippocrates also treats of hydro-carbons under the name of “ασφαλτος.”

As we see, these hydro-carbons were indicated in almost all branches of the medical art.

There now comes a long period during which hydro-carbons fell into profound oblivion in medicine, probably on account of their rarity in commerce, so their employment anew is of very recent date, and is due to the discovery of the extremely abundant petroleum wells of North America, the working of which began in 1859. Since then petroleum has become at first a popular remedy, and soon acquired the reputation of being anti-catarrhal, anti-spasmodic, and stimulant. This is not surprising when we consider that petroleum contains a large quantity of hydro-carbons

and volatile substances suitable for modifying the broncho-pulmonary passages at the time of their elimination (Dujardin-Beaumetz). It has been remarked for a long time that the workmen in the petroleum wells in Pennsylvania are rarely attacked by phthisis, and this observation has also been confirmed at Paris (R. Blache, Dujardin-Beaumetz). It is from this that the practice has arisen of administering petroleum in the form of oil of Gabain (petroleum spring near Beziers) to persons suffering from catarrh of the bronchial tubes, and to consumptives.

According to Wielczyk, who has made some observations on the petroleum workers of the Carpathians, the respiration of the petroleum vapours recently brought to the surface of the earth produces at first some lightness in the chest and freedom in respiratory movements, it accelerates the beating of the heart, but later brings on ringing in the ears and general weakness. On the same authority, skin diseases are very rare among the workmen, and phthisis is almost unknown—a fact which is, he considers, a result of the inhalation of petroleum vapour. This substance is also favourable to the healing of wounds and sores, and compresses steeped in it have appeared to exert a good influence on articular rheumatism. Galassi also extols its inhalation, and particularly in whooping-cough. Petroleum has been used as an anthelmintic, even against *tænia*; dandruff has also been treated with it. Lately it has been much recommended in the treatment of diphtheritic sore-throat in the form of paint.

In spite of all this, the hydro-carbons have not succeeded in making their way into official therapeutics, and this is due solely to petroleum containing poisonous substances. This has procured for petroleum an absolute rejection on the part of Nothnagel and Rossbach, in their "Handbuch der Azeneimittellehre." These gentlemen not only reject American petroleum on account of the inconstancy of its effects, and consider it unsuitable for internal administration, because of the nature of some of its ingredients, but even think it superfluous for external use.

Unfortunately, by this verdict they have thrown more or less discredit on all the hydro-carbons, which, in reality, freed from the harmful and toxic elements form remedies of a high therapeutic and curative value. However, one product of the hydro-carbon series, produced from the heavy oils, has succeeded in acquiring in a very short time an important position in therapeutics, and particularly for the hypodermic method. I mean the liquid vaselines. This has been attained only at the expense of the curative properties of the heavy oils, which disappear with their complete purification. Though reduced to the rôle of a simple vehicle, yet the vaselines have rendered great services to medicine, owing to the property possessed by the heavy petroleum oils of dissolving essences, most of the alkaloids and antiseptic substances.

These uses, indicated for the first time by Albert Meunier, are not affected by the condition of the vaselines being pure. In this way antiseptics are rendered injectable, and these injections are practised on a large scale. According to Meunier an animal has been injected with up to one three-hundred-and-fiftieth of its weight of pure vaseline.

The balsamic and antiseptic essences, sulphide of carbon, sulphuretted

hydrogen, iodoform, iodine, carbonic acid, and above all creosote have been in various ways used in treating affections of the respiratory passages. It is more particularly the creosoted vaseline which is in vogue for the treatment of tuberculosis, and I myself have practised this injection on a large scale. Unfortunately the patients soon become fatigued by this, if they did not refuse to undergo it at first, as the pain produced, the consecutive infiltration of the cellular tissue, etc., have too serious inconveniences for its continuance. It was fortunate that in this difficulty I had discovered in the nearest relation of the liquid vaseline, the "Vasogene Klever," a medicinal substance which replaces it most advantageously (as the number of my faithful ones was diminishing more and more, I had to give up altogether this mode of treatment), and above all can be used, as we shall see presently, in hypodermic injections for the treatment of respiratory affections and tuberculosis.

The "Vasogene Klever" is obtained by a new process of manufacture, and Mr. Klever himself attends to the preparation of the different medicinal preparations. The pure vaseline, of which the manufacturer has been kind enough to give me, as a special favour, a sample, is of almost the same consistence as liquid vaseline, is of a brownish-yellow colour, and has a specific gravity of 0·89; its reaction is slightly alkaline, and it forms with water a constant emulsion of a bluish colour, the odour and taste of which are not at all disagreeable. Experiments made on rabbits have shown its perfect innocuousness. I have been able to inject one two-hundredth of their weight without causing death. The Vasogenes Klever are true medicaments, which contain the active principles of the natural hydro-carbons from which the medicinal vaselines have been derived. In consequence they dissolve, even better than vaseline, the various medicinal and other substances of which I have spoken: for example, the vasogene with iodoform contains five per cent. of iodoform (more than any other substance before), and the vasogene with creosote ten to twenty per cent. of creosote. In addition, the vasogenes have yet two special properties given them by the combination with oxygen, viz.:

1. The emulsifying of liquids, such as the normal or pathological secretions of the skin, mucous and serous membranes, glands, tissues, sores, etc.

2. The power of being reabsorbed with a facility unknown before.

It is indeed in the quality of the emulsification of liquids, which are eagerly attacked by the vasogene, that the faculty of absorption finds its explanation. It is very curious to confirm by experiment not only this diffusibility of the vasogenes and their imbibition by the tissues, which are naked and deprived of epithelium, but also their penetration of the mucous epithelium, as well as that of the skin, in order to arrive at the capillaries and terminations of the nerves, where they develop their action and are absorbed.

This absorption through the skin is not an hypothesis, but has been established by chemical analysis, which has shown the presence of phenol and iodine in the urine after injection with the vasogenes of creosote and iodoform.

In order to arrive now at the results obtained with the different preparations of vasogene, I must remark that I have tried them during the last two or three years in a polyclinic in private practice, and at the Surgical Institute, where Drs. Deleroez, Delcroix and Twisser have also tried them in their respective departments of gynaecology, surgery, and affections of the urinary organs.

These are the principal preparations which I have used :—

Vasogene with Menthol.

..	Iodoform.
..	Creosote.
..	Ichthyol.
..	Creoline.
..	Camphor.
..	Eucalyptus.
..	Pyoktanin.

Their application has had place—

1. On the skin.
2. On the mucous membranes.
3. In internal administration.
4. In surgery.

In application of vasogenes to the skin I arrived at two effects, (*a*) a direct or local one, and (*b*) an indirect result, either regional or general. The effects specially favourable to the preservation and softening of the epidermis produced by the heavy oils was well known to the ladies of the ancient world (Pliny), and they used them largely as cosmetics, just as vaseline is to-day. It is therefore not at all astonishing if vasogenes, combined with ichthyol and iodoform, produce an eminently curative action on certain skin affections, such as eczema, impetigo, pruritus, acne, lupus, pityriasis, etc., and are even said to be specific in fevers. I give here the results of my modest observations without wishing to anticipate the final judgment of the more authoritative voices of those dermatologists who might wish to submit these products to more conclusive trials.

In order to obtain the indirect regional effects, that is to say, to act through the skin on either the cellular tissue, the nerves, muscles, or even on the periosteum and their neighbourhood, the vasogenes with menthol, terebinthine, and above all with camphor, have given unexceptionable proofs of their efficacy, though I should be far from refusing to admit the part which may be due to massage.

Vasogene of menthol (thirty per cent.) is the remedy *par excellence* for migraine.

The vasogene with camphor was employed with the best results on rheumatic affections, neuralgia, congestions, articular and peri-articular swellings, sprains, etc.

Of greater importance and higher interest for me was the question of knowing to what point and how far a general effect could be produced by inunction of the skin with vasogenes. Some consumptives, whose digestive organs opposed themselves to all internal treatment, or who, fatigued with different medicines, refused them absolutely, offered me a favourable occasion for observing the efficacy of the method. I had,

therefore, inunctions made on the skin of these patients with from two to ten grammes of vasogene creosoti (of ten to twenty per cent. strength) a day, using it sometimes on particular parts and sometimes on the whole body, taking a fourth of the surface at a time, and each day alternating with another fourth, which was next day washed with soap; at the same time my patients were required to observe the hygienic and dietetic rules which constitute the essential conditions of all rational treatment of tuberculosis. These were: (1) excessive care of the nutrition, even super-alimentation if possible, (2) good air and proper exercise, and (3) hydro-therapeutics.

The rubbings were very well supported by the patients, the only inconvenience resulting being the creosotic atmosphere surrounding them, which was one more for those about them than for themselves; they very quickly become inured to this if they see resulting a beneficial influence on the respiratory passages by this atmosphere.

I have generally remarked that on some days an amelioration was produced in this way, the respiration became more free, expectoration less abundant, nocturnal sweats diminished or disappeared, the appetite often increased, the fever (if one was present) decreased, and, in a word, the general state became better.

I have followed very closely the changes produced in patients attacked by tubercular affections of the larynx, such as ulcerations, infiltrations, simple and edematous, perichondritis, etc., and I have established the fact that without local treatment changes were produced which far surpassed all my expectations; the ulcerations cicatrized, the infiltrations were reduced, and the perichondritis disappeared in patients who had been examined by other doctors, and I can show them to whoever desires to see them.

Very often a short time after the friction with vasogene creosoti in the laryngeal region the patients remarked the taste of creosote in the mouth. Nothing surprising this, since the presence of phenol in the urine has been confirmed by chemical analysis.

The question yet remains to be elucidated—what part in these medications is due to the vasogene, and how much of the result may be attributed to the creosote? The answer appears to me very simple: because without the vasogene the door of entry into the system would remain closed to the creosote—therefore nearly all the merit belongs to the vasogene. Another matter is the internal administration of the vasogene, of which I shall speak later on. In this case the vasogene adds to the efficacy of the creosote, admitted by numerous adepts, by giving it new curative qualities, the exact importance of which it is impossible to determine just now.

I now come to speak of the application of the vasogenes to mucous membranes. My observations relate chiefly to those of the upper respiratory passages, the nasal fossae, pharynx, larynx, and trachea. The vasogenes employed here are those with iodoform, menthol (five per cent.), ichthyol, and creoline. The methods employed consist of inunction, injections, spraying, and gargling.

The rubbing was made with sounds, covered with cotton wool

saturated with vasogene—one might call it a species of massage with the intention of making the remedies penetrate the mucous membranes through the epithelium. In this way, with the vasogene of menthol, I treat catarrhs—simple nasal, pharyngeal, laryngeal, and even hypertrophic ones—with excellent results. In the treatment of ozena and chronic catarrh, nasal and retro-pharyngeal, with or without hypertrophy of the tissues, the vasogenes with iodoform, ichthyl, and creoline can be also recommended.

It is necessary to apply them with strong rubbing, in the manner mentioned, to the mucous membrane, covered by crusts formed of the dried parts, or to the atrophied membrane, shining with a slight varnish of dried mucus so as to render in some moments their appearance more or less moist or normal. Naturally it requires all the skill and perseverance of the operating surgeon to obtain a durable success.

In inflammatory and microbian affections of the mucous membranes and cytogenous tissue, such as sore throats—simple, follicular, diphtheritic, phlegmonous, etc.—the vasogenes of creoline and iodoform exercise a remarkable influence, not only as being anti-microbian, but also as directly calming, which last effect is explained by their diffusibility and penetration into the tissues, thus producing effects equal to those of parenchymatous injections. As the application of these remedies is by no means disagreeable, the patients wish it repeated or use new applications themselves, if it were only with the index finger! I have noticed that false membranes, diphtheritic and otherwise, are dissolved, so to say, by contact with the vasogenes of creoline, iodoform, and ichthyl. Moreover, the results obtained lately with these substances in bacteriology, which are soon to be published by a distinguished bacteriologist, explain these facts perfectly.

Besides direct inunction, I have used with my patients injections, sprays, and gargles made with emulsions of the vasogenes of creosote, creoline, and iodoform in various affections of the upper respiratory passages. It is to be noticed that spraying with the creosotic emulsion produces a soothing effect on the membranes, and is indicated in acute affections of the pharynx, larynx, and trachea, and especially in whooping-cough; they produce, in addition, a sensation of coolness and free respiration, which the patients value greatly. This effect is also produced in chronic catarrh. Results of almost the same kind are obtained by the use of injections and gargles made with the emulsions.

The internal administration of the vasogenes appeared to me to be the most important, though I have employed only the vasogene creosoti, for the treatment of tuberculosis, chronic bronchitis, asthma, and whooping-cough.

Besides the therapeutic properties and efficacious principles which I have actually found them to possess, I doubt not but that in the future other curative qualities will be discovered in the vasogenes, suitable for a series of internal affections of microbian origin.

For the treatment of tuberculosis I pursue with the patients who can bear medicine the following course: first of all I make them observe, as for the endermic method, the hygienic and dietetic rules mentioned before, viz.:

1. A selected diet, even in excess.
2. Good air and suitable exercise.
3. Hydro-therapeutics.

At the same time they take, to begin with, twice or thrice daily, five drops of vasogene creosoti in a little pure water, cold or hot, with nothing else, or with the addition of a glass of milk or a little cognac, according to the choice or taste of the patient. If possible I also apply a few drops in an emulsion through the rectum by means of a little syringe holding three grammes, as used for glycerine injections : the patients bear this little operation very quietly. I increase gradually the dose every day by one or more drops, according to the state of the patients, in order to arrive at an average of twenty drops thrice daily. Indeed, I have patients who take one hundred and fifty drops a day, using both methods of application, or giving the preference to one or other, according to circumstances ; with other patients I use in addition the endermic method. This treatment is generally so well received that those who can bear neither cod liver oil with creosote, nor creosote in pills or capsules, continue to take it. The emulsion of vasogene creosoti is very easily assimilated both by the stomach and the rectum, producing only very rarely, and then when the digestion is in a very bad condition, any gastric derangement. In such a case I confine myself to the rectal injections, which produce not the least inconvenience, the emulsion causing at most only a slight smarting. When the digestion improves, the patient takes the emulsion in a potion—indeed, as a general rule, the appetite improves by the use of vasogene creosoti, a fact which I attribute to its soothing and favourable influence on the lacteal digestion ; it acting probably as an anti-ferment. Moreover, this does not surprise me at all, when one considers that the state of emulsion is just that necessary for absorption, while it cannot be denied that creosote in capsules or pills acts as a caustic on the mucous membrane of the stomach, keeping it in a state of continual irritation.

The effects produced by this treatment are more marked than those which I have cited as the result of the endermic method : the action of the heart is regulated, fever disappears, nocturnal sweats diminish and disappear, expectoration decreases, and with this the number of the bacilli, which take at first the less developed forms.

Also the respiration becomes freer and more easy : a sensation that the patients welcome with great pleasure, and which seems to show an anti-spasmodic action of the vasogene.

The digestive functions improve, and I have seen intestinal pains and persistent diarrhoea in a consumptive, who had already had twenty-one spittings of blood, cease in a few days under the influence of the creosotic emulsion of vasogene ! The general health improves, the weight is increased and strength returns, concurrently with this amelioration of the general state. The local symptoms are modified, bronchial *râles* diminish and disappear, and I have seen pulmonary infiltrations so reduced that they could not any more be detected by percussion. It is laryngeal affections which give more scope for observation of the curative effects of this remedy. I have seen improve, and completely disappear,

tubercular laryngeal affections, beginning with simple concomitant catarrh and up to lesions of the gravest character as ulcerated tubercular infiltration, oedematous perichondritis, with stenosis of the larynx, etc. In favourable cases where the vitality is not too much involved, the amelioration shows itself in a short time: on others one must proceed with caution, as I have mentioned before, and with some patients with lesions too far advanced the treatment must be confined to the endermic method, in order to satisfy the patient.

In fact, all the results obtained in tuberculosis by this treatment are such that I consider it only my duty to publish them, and so bring them to the attention of physicians. I refrain from relating the detailed history of the cases which have been treated with complete success, with a half success, and with none at all; this would lead me too far just now. However, just to touch on acute pulmonary diseases, I cannot let pass in silence some observations made of a double pneumonia—a case of influenza well-marked—in a fine horse of five years of age, which became ill on March 18th, 1893.

On the 22nd, at midday, when I was told of it, the veterinary surgeon had given up hope of cure: the temperature 41·5°, respiration 26, head hanging, eyes closed, the setons dried up, and vesication producing no more effect. At midday five grammes of the emulsion of the vasogene creosoti with a litre of water were poured into the mouth; at the same time two moxas were applied. At four o'clock the temperature had fallen to 39°, and the veterinary surgeon found that a strange phenomenon had occurred—the lung was half freed. The animal received a second draught with five grammes, and again in the evening another, containing the same quantity. The next day, March 23rd, at eleven o'clock a.m., the temperature had fallen to 38°, the respiration jerky, but more laboured, the eyes were open and the head lifted: fifteen grammes were administered in the course of the day. Day after next the temperature was normal and the horse quite convalescent. A comrade which was attacked with influenza before this, and had not been treated with vasogene creosoti, died rapidly of pulmonary gangrene. Without wishing to draw any other conclusions from the observations made in this case, I believe that the vasogene with creosote merits being tried in pneumonia.

By way of compensation a large number of patients furnished me occasions for the employment of this remedy in asthma (of reflex nasal and post-nasal origin), and chronic bronchitis, especially of a dry character, with manifest success. The same results happened in whooping-cough, of which I had some cases in treatment, and have been able to produce a rapid improvement in them. In these cases I employed at the same time sprays of vasogene creosoti in emulsion.

In surgery the vasogene of iodoform appears to be destined to play an important part, not only as an antiseptic and aseptic, but also as a healing remedy. In the first place it has the great advantage of being able to dissolve iodoform in extraordinary proportions (five per cent.); thus it preserves the essential qualities of the iodoform, which are recognized as being, to say the least, aseptic, and besides it contains the peculiar properties of vasogene, of which not the least valuable is that of

being a powerful bactericide, as proved by recent bacteriological researches, which are going to be published shortly. These advantages are sufficient to constitute it a valuable and excellent remedy for the dressing of wounds and sores on condition that it is not otherwise injurious by absorption. In order to answer this question I can affirm that up to the present no case of toxication has been observed by me or other surgeons in the numerous trials we have made of it.

Furthermore, supposing that one employs ten grammes pure or in emulsion—a quantity relatively enormous, of which there would be need only very exceptionally, seeing that a small amount is sufficient to cover a surface large enough, owing to the great diffusibility of vasogene—these ten grammes only contain fifty centigrammes of iodoform! What is this in comparison with the quantities of iodoform which were usually employed in surgery!

In presence of these considerations vasogene iodoformi has been clearly shown to possess very valuable properties: it favours the healing of wounds by first intention, diminishes suppuration, and promotes cicatrization; it is an excellent anti-ferment, and has proved itself to be such in operation on the urinary passages.

The facility and simplicity of its use for dressings render it particularly fitted to serve in army surgery. But I have found yet other qualities in it, which are even specific up to a certain point: on the occasion of my experiments with its substances injections in rabbits, I had noticed that the vasogene made an immediate emulsion in uniting with the fluids of the tissues, which it disengaged up to the point of causing mortification.

As an example, in a rabbit I had injected in the same part of the skin three syringes de Pravez at a time, all this part became necrosed and dried up in consequence. Putting to profit this observation, I thought of dissolving some tumours by parenchymatous injections, and here are the results of my experiments, which have reference to both innocent and malignant tumours, obstructed glands, lymphomas, lymphadenomas, epitheliomas and sarcomas.

The dissolving effect of the vasogene iodoformi was manifested more or less distinctly in every case. A lymphoma, after one injection of a syringe de Pravez, was dissolved at the end of two days and eliminated altogether on the third by an incision made for the purpose; some enlarged glands became softened, and cicatrized very quickly after incision made in course.

An epithelioma occurring in a man of seventy-two years, in the lateral wall of the pharynx, just under the tonsil near the epiglottis, which was filling gradually the pharyngo-laryngeal passage compressing the epiglottis, and so invading the pharynx that tracheotomy became imperatively necessary, was injected with half a gramme of vasogene iodoformi. The immediate effect was an increase in the size of the tumour, collateral oedema and dyspnoea during the following night. On the second day after, the tumour was already beginning to dissolve at the place of injection, with a loss of its substance there, respiration was more free, and the patient easier. Salivation and abundant expectoration of mucous

matter took place, with a slight odour from the matter expelled : the injections were repeated, and as a result the tumour became reduced to such a degree that the epiglottis was freed, and the question of tracheotomy thus removed. The patient died unexpectedly some time afterwards without my knowledge ; I was not able to decide exactly the cause of death.

In a case of a sarcoma (epulis) in the left upper jaw of a young girl of sixteen years, which was growing through the perforated alveolus of one of the molar teeth into the buccal cavity, after two attempts at extirpation, and treatment by electrolysis, six injections of vasogene iodoformi were made into the tumour, which dissolved for the most part, and retired from the alveolus. Afterwards, when an incision was made for its extirpation by the partial resection of the jaw, it was found that the alveolus was entirely occupied by the neoplasm : total resection of the jaw had to be resorted to, the operation being performed by Dr. Delcroix.

Though the results obtained with malignant tumours are not altogether absolute, the importance of the effect produced remains nevertheless incontestable, especially when dealing with tumours which cannot be operated upon.

The following notes of a case, however, in which the treatment was not by parenchymatous injections of vasogene, but simply by their application by friction, seem to me more conclusive regarding the special virtues of this remedy in the treatment of tumours. A patient, aged forty-two years, presented himself to me on May 5th, with an ulceration and induration of the size of a nut, on the left side of the tongue near its extremity. He had had this about two months. As the affection had in all respects the appearance of an epithelioma I proposed to extirpate it after three days, which the patient agreed to. Meanwhile I had the ulcer rubbed with vasogene iodoformi, neglecting to make a microscopical examination, as I had no doubt at all of my diagnosis.

When the patient came on the third day the ulceration had a better appearance, and I decided to postpone the operation, in order to see if the improvement would continue. In fact, not only did the ulcer become clear and covered with regular granulations, but the induration became less. Cicatrization commenced and now (three weeks after the sore is almost closed and the induration, so to say, disappeared.

In this case I used at first vasogene iodoformi, and five days after that vasogene with pyotanin.

Dr. Delcroix has also obtained rapid cicatrization in fistulas produced by osteo-periodontitis of the metacarpus and sternum. The first case was that of a little boy of eight years, where the fistulas had resisted scraping and painting with chloride of zinc (Oct. 15th, 1892), and then cauterization with the thermo-cautery (Feb. 28th, 1893). On April 25th, 1893, the treatment with vasogene iodoformi was begun, and on May 20th the little patient was completely cured.

I cannot finish this paper without mentioning that I have found in the vasogenes, either with menthol or ichthyol, an excellent oil for the ears, which dissolves obstructions of any kind as well as any other product : it

gives suppleness to the epidermis of the passage and tympanum, and so replaces advantageously the wax of the ears. My patients were very well satisfied with its use.

There now remains a word to say on the concentrated solution of vasogene ereolini, perfectly pleasant to use and prepared expressly for this purpose, that is to serve as a disinfectant for the hands, instruments, and other objects.

The liquid penetrates everywhere owing to the well-known diffusibility of the vasogene, preserves the skin, and has none of the injurious inconveniences of corrosive sublimate or carbolic acid.

From the foregoing we see that the therapeutic indications of the value of the hydro-carbons, and notably of the vasogenes, which worthily represent them and complete them in a happy fashion, are numerous, without taking into account those reserved to us by the future after further experiments.

DIPHTHERIA AND THERAPEUTICS.

Health Department of New York.—*Circular of Information concerning the Use of Bacterial Cultures by the Health Department for the Diagnosis of Diphtheria.* “Med. Rec.,” June 24, 1893.

RECENT investigations have shown that a considerable proportion of pseudo-membranous and exudative inflammations of the throat and upper air-passages, commonly considered as diphtheria, and having the anatomical appearances found in diphtheria, are not true diphtheria. These cases may be called false diphtheria.

It has also been shown that a considerable number of cases considered to be false diphtheria are really true diphtheria. While in true diphtheria the mortality is very high and the danger of transmission to others great, in false diphtheria the mortality is low and the danger of infection slight. The differential diagnosis between true and false diphtheria can be made by bacteriological examinations within twelve hours, while without their assistance it is difficult or impossible.

The Health Department is now prepared to make use of bacterial cultures for diagnosis in all cases of suspected diphtheria occurring in the city, and desires that in every case either the physicians should themselves make the inoculations, or should authorize an inspector to make them. They should be made in every suspicious case at the earliest possible moment. It is only in this way that the full benefit of a positive diagnosis is obtained, for during convalescence the specific organisms often disappear from the throat. The inoculations are made by gently rubbing a cotton swab against the throat, and then drawing it over the surface of the culture-medium. When the physician desires to himself make the culture (and this is usually the better plan, for it can be done earlier and is more agreeable to the family), he can obtain, free of cost, a culture-tube and swab, and the simple directions necessary for

their use, at any one of the druggists whose addresses are given in the circular. After the inoculation the tubes are to be returned at once to the druggist from whom they were obtained. The tubes will be collected by the department every evening. If, on the other hand, the physician desires an inspector to make the inoculation, he is requested to state this when the notification of the case is sent to the department. The diagnosis will be ready in every case by noon of the following day. The attending physician can obtain this immediately by telephoning to the Laboratory (1191 Spring), or when this is not done he will be notified by mail. Cases which prove to be false diphtheria will not be visited by the department. Cases, on the other hand, which prove to be true diphtheria will be subjected to the usual rules and regulations covering contagious diseases.

Dundas Grant.

Hill, Eustace (Durham).—*Diphtheria and Specific Sore Throat Affections.*
“Brit. Med. Journ.” Aug. 19, 1893.

Davies, Sydney (Plumstead).—*The Causes of the Increase of Diphtheria in Urban Districts.* “Brit. Med. Journ.” Aug. 19, 1893.

THE two papers formed the basis of an interesting discussion on diphtheria, in which Drs. Thresh (Essex), Newholme, Robinson, Sir Charles Cameron, Ogilvie Grant (Inverness-shire), etc., took part. Dr. Hill especially insisted on the agency of milk in carrying the infection. Polluted water was not considered in the same light, while reference was made to the opinion gaining ground, viz., that the disease was not the result of those general insanitary conditions which were usually considered the factors of a high general and zymotic death-rate. The difficulty of controlling the spread of diphtheria was remarked upon as due to misdiagnosis, which was partly aided by the often varied types of the malady. Dr. Hill refers to an epidemic caused by milk pollution from an affected hind, where there was no formation of membrane, but other symptoms marked. Dr. Hill further alluded to the supposed affinity or connection between scarlet fever and diphtheria—diseases, it may be stated, both apt to attack the cow. In Houghton Rural District both were observed to be associated. It was remarked in this connection that scarlet fever was responsible for the weakened throat, which offered facilities for the ingress of diphtheria. School attendance was once more the chief factor, in Dr. Hill's experience, in the spread of diphtheria. As measures to be adopted in combatting the disease were the abolition of the word “croup” from the medical vocabulary, the notification of sore throat, and isolation.

Dr. SYDNEY DAVIES, in referring to the causes of the increase of diphtheria in urban districts, insisted strongly on the ventilation of sewers (grid ventilators) as one, if not the chief, cause of the urban increase of diphtheria. This author is therefore a believer in diphtheria being dependent on sanitary conditions. He pointed out that the increase of diphtheria in Plumstead corresponded to the last five years, which had witnessed the growth of grid ventilators. Grid ventilation came into fashion during the last fifteen years, which explained the Registrar-General's annual figures of the diphtheria mortality. The increase of mortality was confined to the towns during this period. Diphtheria, it

was stated, had diminished with sanitary improvements, but, unlike enteric fever, had again increased, owing to insanitary methods of ventilating sewers.

Dr. THRESH made reference to the practice of licking slates and pencils as the point in spreading the disease in schools.

Dr. WM. ROBINSON spoke of an instance of two cases of "croup" breaking out in a house, under the floor of which rats had burrowed from an old sewer, and there died, filling the dwelling with foul emanations.

Sir CHARLES CAMERON found no connection between sewer ventilation and diphtheria in Dublin.

Dr. ALFRED HILL considered drain air, as being less highly oxidized, the more dangerous element, and referred to mis-diagnosis as a difficulty. Where the mortality of diphtheria was placed at five per cent. an error had occurred.

Wm. Robertson.

Putnam, W. E. (Whiting, Ind.)—*Treatment of Diphtheria.* “Med. Rec.,” April 15, 1893.

In the case of his own children he used a spray of peroxide of hydrogen, full strength, with the addition of one part per thousand of corrosive sublimate. In addition he employed continuously a steam kettle containing a tablespoonful of turpentine to a pint of lime-water.

Dundas Grant.

Levy and Knopf (Strasburg).—*Combined Treatment of Diphtheria by Papayotin and Carbolic Acid.* “Berliner Klin. Woch.,” 1893, No. 32.

THE authors have treated fifty-seven cases by brushing with these combined drugs, with thirty-six cures.

Michael.

Haynes.—*Ozone in the Treatment of Diphtheria, with Reports of Seven Cases.*

“New York Med. Journ.,” July 15, 1893.

“THERAPOL” was used, swabbed on the throat, and injected up the nostrils and allowed to run back into the naso-pharynx, and even to be swallowed. This substance carries ten volumes per cent. of ozone, and is quite free from noxious properties.

Turpentine inhalations and the usual iron and chlorate of potash mixture as a gargle in the case of older children constituted the treatment which was most successful in pharyngeal diphtheria. If the larynx is also involved, then ten grains of calomel is to be sublimed every two hours for the first twenty-four hours, every three hours for the second day, and every four hours for the third. The vaporizing apparatus should be so arranged that the calomel sublimes in eight minutes, and the child remains in a tent with the vapour for five minutes longer.

B. J. Baron.

Wingrave (London).—*An Improved Mouth Prop or Gag.* “Brit. Med. Journ.,” Aug. 12, 1893.

THIS refers to improvements by which Mr. Wingrave has further enhanced the value of this excellent little instrument. The curve applied to the horizontal arms of the gag renders its adjustment to the

alveolar borders more accurate, while the thick rubber mounts spare the teeth greatly, and grip edentulous alveoli securely. *Wm. Robertson.*

Moore, Lennox (London).—*Improved Nasal Speculum.* “Brit. Med. Journ.” July 22, 1893.

THIS consists in the application of a holder to a Thu licum’s nasal speculum, which is given to the patient to handle, so that both hands of the operator are free. *Wm. Robertson.*

Bottini.—*New Accumulator Battery for Galvano-Cauterization and Light.* “Brit. Med. Journ.” July 29, 1893. (Manufactured by Marelli, of Milan.)

THIS contains two elements, each element of fourteen plates. Liquid pure water with ten per cent. pure sulphuric acid. Height, 23 centimetres : breadth, 13 centimetres ; length, 18 centimetres : weight, 8 kilogrammes : capacity of the whole battery, 50 ampere hours, 25 for each element. Both the elements have useful energy, corresponding to ninety Watt hours. The battery requires recharging once every six months : this takes three hours if from a dynamo, six hours if from an ordinary four-cell Bunsen’s battery. The compartments are hermetically closed, so that the battery is transportable. *Wm. Robertson.*

Sprague, J. B..—*A Simple Substitute for the Leiter Coll.* “Boston Med. and Surg. Journ.” July 27, 1893.

THE apparatus consists of a rubber bag for applying heat or cold to the mastoid region. A clamp securely closes the neck, and makes it watertight. It is applied with its wider end over the mastoid process, and with the auricle protruding through an opening about its centre. It is fastened to the head by means of tapes. *W. Milligan.*

Smith, Andrew (New York).—*A New Method of Auscultatory Percussion.* “Med. Rec.” June 24, 1893.

THE chest-piece of a binaural stethoscope is held between the patient’s teeth, and his lips are closed over it. During percussion the patient’s nostrils are compressed, and the observer listens with the stethoscope in the manner usual for auscultation. The presence of solid tissue renders the tone flat and woody, and of higher pitch than normal. The intensity is greater than with ordinary percussion, but the effect is the same in kind. *Dundas Grant.*

Dobisch.—*Local Anæsthesia.* “Med. Rec.” (Surgical Suggestions), June 24, 1893.

A SPRAY of menthol, one part; chloroform, ten parts; ether, fifteen parts, used for about one minute, is said to produce local anaesthesia, lasting from two to six minutes. *Dundas Grant.*

Grant, Dundas (London).—*Nitrous Oxide Anæsthesia for the Removal of Tonsils and Adenoids.* “Brit. Med. Journ.” August 19, 1893.

THE author in his letter makes strong reference to the safety of nitrous oxide gas as an anaesthetic in contradistinction to chloroform, in tonsillotomy and the removal of adenoids.

Reference might here be made to a death from chloroform administered to a girl, aged twenty-one, at the Newcastle-on-Tyne Infirmary, for the

removal of a small bony growth from the nasal septum, ostensibly a septal spur, which prevented due respiration. The case is referred to in the "British Medical Journal," August 26, 1893. If, as stated, the bony growth was small, surely a general anaesthetic was uncalled for. If the removal of large polypoid growths, even sarcomata filling the post-nasum, enlarged turbinals, and septal spurs, is daily effected throughout the civilized world under cocaine, and almost painlessly, the question arises how should such an undertaking ever have been perpetrated? What of such excellent appliances as electrolysis or galvano-cautery, not to mention the saw, for the use of which thousands of competent authorities consider cocaine sufficient?

Wm. Robertson.

Rohrer (Zurich).—*Further Investigations into the Antimycotic Properties of Aniline Derivatives.* "Archiv für Ohrenheilkd.," Band 34, Heft 3.

ANTHRAX threads were readily deprived of their pathogenic properties by means of a one per thousand solution of hexa-ethyl-pyoktanin. *Eczema of the auricle* and *superficial external otitis* yielded in almost every case to the application of the pyoktanin pencil, or to dusting with tufts of cotton wool dipped in pyoktanin powder. Even obstinate cases—as also *eczema of the nose (vestibule?)*—were successfully treated. Inflammation of the subcutaneous connective tissue and periosteum of the *mastoid*, secondary to eczema of the meatus, of such severity as to suggest antral disease, yielded to meatal applications of the powder. It was efficacious in *acute and chronic middle-ear suppuration*, being introduced in cases of perforations of Shrapnell's membrane right into the opening. After *nasal galvano-cauterization*, he insufflates a powder containing two per cent. of the drug. He considers it superior to methylene blue or to auramin, but admits the difficulty in making reliable experiments as to the absolute and relative antiseptic power of these products. [We have used these remedies in a series of cases, but have not found them superior to others which had not the unpleasant staining effect. At the same time they may prove very useful and impressive reserves.—ED.]

Dundas Grant.

Kramer, W.—*Treatment of Lupus of the Skin.* "Med. Rec.," May 20, 1893, from "Annals of Surgery."

FREE "circum-" and "ex-" cision of the diseased parts, with primary or secondary suture, or, if necessary, transplantation by Thiersch's method.

Dundas Grant.

MOUTH, PHARYNX, &c.

Wertheimer.—*On Submaxillary "Mumps."* "Münchener Med. Woch.," 1893, No. 35.

DESCRIPTION of a case of epidemic parotitis in which both parotid glands were healthy, and only the submaxillary glands were affected.

Michael.

Wacker.—*Contagious Swelling of the Submaxillary Gland.* “*Marchener Med. Woch.*,” 1893, No. 35.

PAROTITIS epidemica affecting two children, without swelling of the parotid glands, only both submaxillary glands were swollen. *Michael.*

Wyeth, John A. (New York). — *Advancement of a portion of the Superior Maxillary Bone in Cases of Hare-Lip with Anterior Cleft of the Hard Palate, for correcting the deformity of the Ala Nasi.* “*Med. Rec.*,” June 24, 1893.

FREE separation of the flattened ala not being found sufficient, Dr. Wyeth has adopted the plan of drilling a hole about one-fourth of an inch from the anterior edge of each of the maxillary bones through the bone, and large enough to permit the introduction of a large soft silver wire. About half-way back along the alveolar process of the short side the upper jaw is deeply divided between two teeth by means of cutting forceps or scissors, and the detached portion is forced forwards till it touches the opposite half, to which it is fixed by means of the wire. The plastic work on the lip is then postponed for at least eight weeks. *Dundas Grant.*

Gottheil.—*Two Cases of Labial Chancre in Cigar Makers.* “*Med. News,*” July 15, 1893.

THERE is nothing new in this paper, but it shows one way in which syphilis may be caught quite innocently from the end of a cigar, inasmuch as the filthy practice of moistening with saliva the pointed end of the cigar, in order to roll it into shape, prevails amongst cigar manufacturers.

B. J. Baron.

Bleything, George D. (New York). — *Gangrenous Gingivitis in Adults.* “*Med. Rec.*,” June 17, 1893.

AFTER twenty-four hours' administration of iodide of potassium for asthma and rheumatism a burning haemorrhagic rash appeared on the body, and marked gingivitis of a gangrenous character developed, such as mercurials might produce. The iodide was then stopped. On an attempt to use it again a year afterwards the same untoward effects resulted.

Dundas Grant.

Philipson (Hamburg).—*Case of Multiple Syphilitic Gummata of the Tongue.* “*Berliner Klin. Woch.*,” 1893, No. 32.

MULTIPLE ulcers and tumours of the tongue were treated with dubious effect with mercury and iodide of potassium. Some improvement followed, but some time later death occurred from cancer of the tongue. The case is not very clear. *Michael.*

Vinton, Maria M. (New York).—*The Frequency of Throat Diseases in New York School Children.* “*Med. Rec.*,” June 17, 1893.

OUT of five hundred and fifty children supposed to be healthy—

Twenty per cent. showed normal throats;

Sixty per cent. had adenoid vegetations;

Twenty per cent. had enlarged tonsils;

Twelve per cent. had both combined :

Four children had divided uvula :

One child had perforation of both anterior pillars with complete loss of tonsils, from an early attack of scarlatina.

The great frequency of throat diseases is accounted for by the humidity of the climate. On dry days the mucous membrane had the pink tint accepted as normal, but on damp days a bright red or even a purplish colour. "Here we have the whole process—humidity, lowered barometric pressure, congestion, hypertrophy of lymph tissue, nasal obstruction, over-secretion of the mucous follicles, enlarged faucial and pharyngeal tonsils, granular pharyngitis—the catarrhal picture we see so frequently."

Dundas Grant.

Lord (New York).—*Primary Tuberculosis of the Tonsil, Cheek, and Lips.*
"Med. Rec.," May 20, 1893.

An ulcer appeared on the right tonsil two years ago along with one of irregular shape and soft consistency on the inside of the left cheek. Half a year ago it spread to the upper and then the lower lip, and the diagnosis seemed to lie between syphilis and epithelioma. On microscopical examination of a portion of the diseased skin it was found to be tuberculous.

Dundas Grant.

Huntingdon, W. D. (Oakland, Cal.)—*Removal of a Safety-Pin from the Pharynx of a Child aged Three Months.* "Med. Rec.," April 22, 1893.

No symptoms appeared for twenty-four hours after an older child had put a safety-pin in the infant's mouth. After that time it became fretful, coughed, and retched. On examination one end of the pin could be seen just in front of the uvula. The point was in the naso-pharynx, and considerable force was required to withdraw it by means of an ear-forceps.

Dundas Grant.

Dugge (Altona).—*Case of Esophageal Diverticulum.* "Münchener Med. Woch.," 1893, No. 40.

A PATIENT, sixty-nine years old, complained of difficulty in swallowing. Only soft and fluid food could be swallowed, and a portion of what was swallowed was rejected. Sometimes a thick Nelaton probe could be introduced, and sometimes it was impossible to pass the smallest bougie beyond the stenosed part. It would appear certain that there was a diverticulum. The patient died some time later from putrid bronchitis, and the *post-mortem* examination confirmed the diagnosis. *Michael.*

Logan, J. R. (Liverpool).—*Case of Congenital Occlusion of the Oesophagus.*
"Liverpool Med. Chirurg. Journ.," July, 1893.

A PRIMIPARA, aged forty-two, was delivered of a female infant at the seventh month. Next day, on observing that the child could not swallow, Dr. Logan passed a bougie, and found its progress firmly arrested four and a half inches from the gums. The child lived for six days on injections of peptonized milk. On *post-mortem* examination, the oesophagus was found to terminate abruptly and completely at the level of the sixth tracheal ring. From this point a muscular-looking band

extended downwards, firmly adherent to the trachea. In its lower part this constricted band again expanded, and for two inches above the stomach the tube was of its normal calibre. No communication with the trachea, such as occurs in the majority of such cases, was detected, and no other abnormality was found in the thorax or abdomen.

Middlemass Hunt.

Schreiber (Königsberg).—*New Dilator for Treatment of Strictures of the Oesophagus.* “*Berliner Klin. Woch.*,” 1893, No. 32.

A SOFT rubber tube, which, after being introduced, is filled with water, and is enabled to dilate the stricture. *Michael.*

NOSE AND NASO-PHARYNX.

Mattison (Brooklyn).—*Nasal Medication with Morphine and Cocaine.* “*Med. Rec.*,” April 1, 1893.

HE feels warranted by his experience in saying that “the continued use of morphine or cocaine, be the manner what it may, and known or unknown to the patient, always involves the danger of ineptitude,” and protests against their use *per nar.* *Dundas Grant.*

Dessar, Leonard A. (New York).—*A New Nasal Bougie.* “*Med. Rec.*,” April 8, 1893.

THIS is made of vulcanized rubber, is one-eighth of an inch thick, four inches long, and three-eighths of an inch wide. It tapers at the point to a thin rounded edge, and at the other end is provided with a rounded handle for the thumb and forefinger. It is intended for use of surgeon and patient, and is valuable in preventing the formation of adhesions after operations—especially galvano-cautery—on the walls of the nasal fossæ. *Dundas Grant.*

Keiper, G.—*A Case of Nasal Hydrocephalus.* “*New York Med. Journ.*,” July 22, 1893.

THE patient in this case suffered from a constant and profuse nasal discharge. On examination, hypertrophic rhinitis was diagnosed. Treatment was adopted, but failed to effect a cure. The author then advised the use of an atropine spray (sulphate of atropine, gr. ii. aq. dest. ʒi.) three times daily. Rapid improvement set in at once.

W. Milligan.

Bernstein, Edward.—*Hypertrophic Rhinitis, producing Ocular Asthenopia.* “*Medical Times.*,” July 22nd, 1893.

THE author draws attention to the fact that cases of asthenopia occur when, even after the refractive error has been properly corrected, headache, etc., continue very much as before. In such cases careful examination of the nasal cavities may afford the proper explanation of the condition. When we remember that the nervous supply of the nasal

cavity comes mainly from the nasal branch of the ophthalmic nerve, which, early in its course, as it crosses the optic nerve, gives off two or three small twigs, the long ciliary nerves, which, joining with the short ciliary nerves from the ciliary ganglion, pierce the sclerotic, and, running forward between it and the choroid, are distributed to the ciliary muscle and the iris, we can readily understand how certain nasal affections underlie certain ocular conditions. In three cases of troublesome asthenopia the author found the middle turbinated bodies firmly impacted between the septum and the outer nasal wall. On palpation, these masses were found to be excessively sensitive, and gave the same pain as experienced after prolonged usage of the eyes. Cauterization of the engorged turbinals relieved all troublesome symptoms.

W. Milligan.

Ferber, Rudolf (Hamburg). — *Treatment of Hay-Fever.* “Deutsche Med. Zeit.,” 1893, No. 65.

THE author, who himself has for many years suffered from severe attacks of hay-fever, and has tried all methods without effect, has now produced a great improvement of his attacks by irritating the external ear. As soon as the ears are red the attack of coryza diminishes.

Michael.

Sajous (Philadelphia). — *Pathology of Periodical Hyperesthetic Rhinitis (Hay-Fever) and its Treatment by Glacial Acetic Acid.* “Universal Med. Journ.,” Sept., 1893.

THE author, after studying hay-fever (which he terms “hyperesthetic rhinitis”) in a large number of cases, concludes that it is not a disease *per se* in its active form, but merely the result of a sudden cessation of the inhibitory functions of the nerve-centres presiding over the physiological processes of the upper respiratory tract.

These nerve-centres, under the influence of hereditary or acquired disease of an adynamic type, having themselves become adynamic, are able to carry on their functions under ordinary circumstances; but when demand is imposed upon them for inordinate functional activity, they lose all power of control, and give rise to the symptoms observed after section of the sphenopalatine ganglion, or of the cervical sympathetic, as shown by Claude Bernard, most marked of which symptoms is hyperesthesia.

Concurring with, and as a result of, this central adynamia there exists a liability of the nasal mucous membrane to become unduly influenced by certain irritants, physical or chemical, or a central susceptibility to the emanations of drugs, plants, animals, or other elements.

When either of these irritants or emanations are subjected by their nature to the laws of periodicity, hyperesthetic rhinitis manifests itself periodically. If periodicity does not regulate the appearance of the causative elements, the disorder may present itself at any time of the year, whenever the susceptible individual is exposed to the element or elements to which he may be vulnerable.

Habit and psychical impressions, as is usually the case in neurotic disorders of an adynamic type, may play, in an especially sensitive individual, an active part in the production and cessation of the symptoms.

The author ascribes a prominent rôle to the ciliated columnar

epithelium covering different parts of the respiratory tract in the production of a paroxysm, owing to its excito-motor physiological functions and the prehensile retentive powers of the cilia. An exception is made, however, in the case of the olfactory area, which is not covered with ciliated epithelium; but the intimate connections between the central sources of nervous supply of both respiratory and olfactory regions readily demonstrate how an emanation to which the sufferer may be inordinately sensitive may act as exciting cause.

The central regions affected he believes to be mainly the grey substance of the bulb which represents the prolongation of the posterior horn, the transit involving the spheno-palatine ganglion, which, besides its motor and sensory roots, possesses a sympathetic root derived from the carotid plexus through the vidian. The presence of asthma as a complication indicates the involvement of a greater central field than that implicated when the nose alone is the seat of paroxysm. This explains the fact that asthma exists in a proportion of the cases only. While in some of these we may have the nasal and bronchial symptoms begin together through simultaneous invasion by irritants of the nose and lungs, especially if the patient is to any degree a mouth-breather, the lungs can become involved, as is well known, through nervous communication; that is to say, by reflex action.

Although not overlooking this reflex cause of asthma in some cases in which it occurs simultaneously with the nasal paroxysm, he does not consider it as entitled to the position accorded it by most authors. Were asthma thus induced in all cases, it naturally follows that its presence would become manifest, as soon as tumefaction of the nasal membrane would give rise to pressure upon the sensitive reflex areas, in all cases in which the central adynamia would involve sufficient territory to also expose the bronchial tract. In the very great majority of cases in which asthma exists as a complication, on the contrary, it appears sooner or later *after* the onset of the nasal symptoms—usually two or three weeks. The lungs in these cases, though exposed by the extent of the central disorder, are protected on account of their anatomical situation, and through the character of the surfaces over which the atmospheric current must pass before reaching them. The nose is obviously the most exposed portion of the respiratory tract, the first landing-place for irritating particles, where they become moistened and softened, losing asperities and chemical force by dilution. The immediate hyperesthesia, sneezing, tumefaction of the membrane, and copious flow of fluids, although the result of a complete relaxation of the parts, are, nevertheless, exaggerated normal functions, those constituting the inherent faculties of the parts.

The open mouth, however, when the nose is too tightly occluded by the paroxysmal tumefaction to at all permit respiration through the normal channel, becomes the doorway of the irritant-laden atmosphere, and the asthmatic attacks begin sooner or later, according to the quantity of irritating particles permitted to reach the lungs. Many conditions may thus play an active part in the production of an attack, most important of which are the proportionate amount of irritating matter in the air

inhaled ; the number of respirations per minute : the number of special irritants to which the patient is physiologically sensitive : the anatomical conformation of the mouth, pharynx, and larynx ; the humidity characterizing these parts in the case, etc., etc.,--thus constituting as diverse a series of influencing circumstances as the periods of onset of the bronchial paroxysm are varied. As an evidence of marked value in favour of the protection afforded the lungs by the upper respiratory tract, he cites the increased severity of the asthmatic paroxysm sometimes observed after seasonal relief or cure of the nasal disorder.

As regards the widely differing results obtained from local treatment or cauterization of the nasal mucous membrane, they are ascribed to the great variation existing in the systemic and local conditions capable of giving rise to the central adynamia. The chances of cure of the hay-fever correspond with the chances of recovery presented by the causative dyscrasia, and when a case of hay-fever is cured by local treatment of the nasal cavities alone, for instance, it is because the central disorder in that case was due to a nasal affection. This view is in accord with that of J. N. Mackenzie.

The proportion of permanent cures obtained have been greater, and the relief afforded in uncured cases more marked and lasting, under glacial acetic acid than under galvano-cautery applications. The vibratile movement of the cilia, as is well known, is stimulated by alkaline solutions and arrested by acid ones, while mucus, or its denser element, mucosine, formed by the process of desquamation, is coagulable by acetic acid, but not by heat. The marked affinity of glacial acetic acid for epithelial cells is therefore an established fact : so that it possesses every quality calculated to annul, for the time being, the local physiological functions. By causing an organic alteration by coagulation of the entire epithelial layer it paralyzes or destroys the terminal filaments furnishing the parts with sensation, and, of course, by disorganizing the cilia, annuls their power of retaining in their meshes the irritating elements which induce the paroxysm. Galvano-cautery produces the same superficial action, but does not affect the deeper portions of the epithelial layer unless pressure is exerted. In that case the area cauterized at each sitting has to be much narrower than when glacial acetic acid is used, and even then the resiliency of the membrane usually causes it to recede before the knife, while the surrounding parts pour out a quantity of mucus, which greatly tends to reduce the heat and to annul its power of penetration. This causes the cauterization often to be but partial. With glacial acetic acid no pressure need be exerted : chemical disorganization taking place at once through its affinity for epithelial cells, the deeper ones yield as readily as the superficial.

The epithelium of the mucous membranes is being destroyed and replaced throughout life, sometimes very rapidly, as in catarrhal affections. In its reproduction it is always derived from pre-existing epithelium by simple division of cells, the evolution taking place from depth to surface. When, however, the surface becomes in any way disorganized, and an ulcerative process occurs as a result, the reproduction takes place from the side, the new epithelium spreading from the edge of the ulcer. We

have in this an explanation of the conditions permitting a return of the paroxysm the year following a season of even complete prophylaxis by local treatment. As soon as the inflammatory disorder (in itself a protective) following the applications recedes, the reproduction of epithelial cells begins, and continues until the membrane re-assumes its former state. The less perfect disorganization produced by the galvano-cautery knife naturally facilitates this process, and the chances of affording relief for the season are not so great with it as when glacial acetic acid is employed. The ten months intervening between seasons, however, are amply sufficient to permit complete restoration of the mucous membrane, whatever caustic may have been employed.

Another marked advantage of glacial acetic acid is that it presents none of the awe-inspiring peculiarities possessed by the galvano-cautery, and patients readily undertake the treatment and continue it. In cases in which the cauterizations do not prevent recurrence the following year, Sajous advocates, in connection with the treatment calculated to correct the central adynamia, renewed cauterizations, not only to prevent the paroxysm for the season, but also in the hope of ultimately eradicating the disorder by gradually lowering the sensory status of the mucous membrane from year to year, and giving the central ganglia an opportunity to recuperate a certain amount of physiological strength while losing the element of habit, a not unimportant feature of these cases. The period of ten months intervening between attacks should be taken advantage of to seek for the source of the central adynamia. Not an organ, system, fluid, or secretion, or unusual personal habit should be overlooked.

To the many etiological disorders already noted in the literature of the subject the author adds rickets and its secondary nervous phenomena affecting the patient, his ancestry, his near relatives, or his children—a subject furnishing much food for thought, and suggesting phosphorus and its preparations and active physical exercise in the treatment of the disorder in a correspondingly large proportion of cases. The presence of cardiac disease in two marked cases of hyperæsthetic rhinitis—father and son, the only members of a large family suffering from either affection—also suggested a possible relation between the causative inhibitory disturbances of the upper respiratory tract and those of the heart.

He condemns the advice given by some authors to avoid local measures after the annual paroxysm has begun, and describes cases to demonstrate the value of cauterization of the nasal cavities, begun within the month preceding the attack or during the latter. In these cases the results were all the more valuable, in that they were treated before cocaine had been introduced, and owing to the fact that no objective disease or malformation of the nasal fossæ existed, the author believing with Greville Macdonald that the greater the amount of objective mischief the greater likelihood of a successful result. He asserts in this connection that had the treatment by cauterization of the nasal mucous membrane been considered by its supporters from the start as calculated solely to arrest the year's paroxysm, not only would it have presented as great a proportion of successes as any method proposed in any other

branch of surgery, but it would have furnished ample opportunity for unexpected results, *i.e.*, the quite respectable number of permanent recoveries.

The multiplicity of etiological factors, the involvement of anatomical elements, peripheral and central, playing in the evolution of the disorder rôles of physiological import varying according to the form and kind of external irritant, and other considerations, warrant him in continuing the use of the term "hyperesthetic rhinitis," which he proposed some years ago in preference to those including any particular irritant, such as "hay fever," "rose cold," "peach cold," "rag-weed fever," etc., or even those pointing to a distinct anatomical system or constituent, such as "sympathetic rhinitis," "vaso-motor rhinitis," or "vaso-motor coryza," etc., which suggest but one of the more important systems brought into play, and which, for this reason, might be applied to several affections. "Hyperesthetic rhinitis" points to the apex of the pyramid of elements forming the disorder, the culminating aim of all its phenomena; it only indicates an aberration—"hyper" ($\omega\pi\acute{e}\rho$), excessive—of a physiological sense—"esthesia" (*aesthesia*), sensibility—truly implying the existing state of things, the disorder being as stated a physiological adynamia, and not a disease involving, as far as we know, distinct central histological changes. Furthermore, it gives an immediate clue to the most prominent cause of active symptoms, and suggests through this the remedial procedures to be adopted.

Palliative treatment is briefly alluded to. The engorged tissues are contracted by means of a solution of cocaine, and the effect is maintained by means of a ten per cent. solution of menthol, in almond oil, the author objecting to mineral oils on account of the sensation of heat they occasion after a few days' use. One application of the cocaine solution every other day by the physician, and ten or twelve applications of the menthol solution a day by the patient, usually suffice to keep him comfortable without exposing him to the cocaine habit. Atropia internally, gr. $\frac{1}{200}$ every four hours the first day, then every six hours, greatly increases the efficacy of the nasal treatment.

Sajous.

Hanford (Nottingham).—*Foreign Body in the Nose for Twenty-seven Years.*
"Brit. Med. Journ.," July 15, 1893.

THIS occurred in a nursemaid, aged thirty-one years, and had produced nasal symptoms for only two and a half years, commencing after an attack of influenza. At first a watery discharge was noticed, which subsequently became thick, yellow and fetid. Examination *secundem artem* showed the left nostril blocked by a conglomerate of decaying material and reddened vascular membrane. The probe detected what was thought to be a sequestrum of dead bone. After removing detritus, pieces of dead bone, etc., a movable body was found deeper in the nostril and removed. It was the size of a filbert nut, and had a nucleus, a perfectly formed cherry stone, surrounded by a calcareous shell one-third of an inch thick, making the whole one inch in its longest diameter. The history of the case proved that the stone, along with others, had been placed in the nostril when the patient was four years old, when two stones were

removed. The absence of symptoms for such a length of time was to be remarked upon. The patient made a good recovery. *Wm. Robertson.*

Sheild, Marmaduke.—*The Common Gelatinous Polypus of the Nose.* “The Clinical Journ.” Aug. 2, 1893.

THE gelatinous polypus of the nose is mainly composed of loose connective tissue, sodden and distended with mucin, and covered with ciliated epithelium. The growths are usually vascular, and swell up in damp weather. They are almost invariably multiple. In the majority of cases they spring from the mucous membrane covering the outer wall of the nose, either from the middle turbinal or the mucous membrane of the outer wall of the nasal groove overlapped by it. Polypus growing from the septum is almost unknown. At times they spring from the lining membrane of one of the accessory nasal cavities. In exceptional cases these growths, originating high up in the nasal cavities, absorb the thin and papery bones, and encroach upon the cranial cavity, producing fatal meningitis. For their diagnosis a speculum and a good light is required. In the treatment of the condition it is important to remove all the growths. This is best accomplished by means of the cold wire snare. The best position for the patient is in a sloping chair or couch, with the head well raised. The parts should be freely painted with cocaine. The operator cannot be too careful to detect and destroy the very small polypoid growths, for it is the continued growth of these which leads to such rapid and inveterate reproduction of the disease. After the growths have been carefully removed, the mucous membrane in the situations of the former polypoid growths should be destroyed with the actual or chemical cautery. In cases of general polypoid disease free access to the nasal cavities should be obtained, and the bones and mucous membrane from which the growths spring should, as far as possible, be removed. This is best accomplished by performing Roux’s operation. After the preliminary steps of the operation have been accomplished the inferior turbinals can be shaved off with a fine saw, and access thus gained to the neighbourhood of the middle turbinal, where the majority of growths originate.

W. Milligan.

Caldwell (New York).—*Diseases of the Pneumatic Sinuses of the Nose, and their relation to certain Affections of the Eye.* “Med. Rec.” April 8, 1893.

THE writer urges the search for intra-nasal disease as an etiological factor in cases of disease of the eye. Disease of the ethmoid bone and cells is more especially apt to lead to disorders of intra-ocular and conjunctival circulation and a group of symptoms which may be called asthenopic, while affections of the sphenoidal sinus are more likely to affect the optic nerve and the motor nerves of the eye. He quotes cases from the writings of well-known authors (including “Lenox Brown” and “Wakes”), and narrates three of his own. In one, asthenopia and orbital pain were so completely removed by treatment of “left hypertrophic ethmoiditis” causing pressure on the septum that the patient did not return for the prescribed glasses, and reported six months later that her sight had improved so much that she did not require them.

In another there were intermittent basilar headache, attacks of hyperesthesia of the retina, pain in the right eye, and blurring of near vision, incapacitating the patient for work. Treatment of the suppuration in the anterior ethmoidal and the sphenoidal sinuses brought about recovery. The third was one of bilateral "cystic and necrosing ethmoiditis," with suppuration in the sphenoidal and posterior ethmoidal cells, which had led to loss of sight of both eyes from optic neuritis. Treatment of these sinuses relieved the intense headache, whereas iodide of potash had been of no avail.

Dundas Grant.

Brown, Moreau R. (Chicago).—*Empyema of the Maxillary Sinus and its Relation to Diseases of the Antrum of Highmore.* “Med. Rec.,” Apr. 1, 1893.

THE writer believes that suppuration in the antrum of Highmore is in many cases due to nasal catarrh. He considers transillumination of value in so far as translucency is incompatible with the presence of pus in the antrum. As evidence that pus is present, he attaches value to the occurrence of effervescence when peroxide of hydrogen (one part to twelve of water) is injected into the hiatus semilunaris. Exploratory puncture through the outer wall of the inferior meatus is spoken favourably of for diagnostic—not for therapeutic—purposes. He prefers “making the perforation at the alveolar apophysis.” He cuts out a circular piece of mucous membrane with a tubular knife just below the gingivo-labial fold, between the roots of the second bicuspid and first molar. A drill, driven by an electric motor, is directed upward, inward, and backward at an angle of about forty-five degrees with the plane of the alveolus. The opening can be enlarged, and in any case a gold drainage tube can be inserted, the entrance of food being prevented by the cheek. He expresses his indebtedness to Dr. Robertson, of Newcastle, for his contributions to the study of the subject, especially in regard to the relation of ozaena to antral disease.

Dundas Grant.

Wolfenstein, Julius.—*A Case of Acute Empyema of the Antrum of Highmore of Nasal Origin.* “New York Med. Journ.,” Aug. 5, 1893.

THE patient, a man aged thirty, consulted the author on account of having a severe cold in the head of two weeks' duration. During the three days previous to the consultation he had noticed soreness of the teeth, and pain in the cheek of the left side. There was also a profuse discharge of pus from the left nostril and considerable pain, especially at night. On examination, the mucous membrane of the left lower turbinal was so swollen that nothing of the interior of the nose could be seen. After an application of a twenty-five per cent. solution of cocaine, a considerable quantity of pus was seen in the nasal passage, particularly in the region of the middle turbinated bone. The transillumination test showed that the left side of the face was perfectly dark, while the right side was quite clear. The patient was instructed to syringe the nasal passages frequently with a solution made from Seiler's tabloids. Rapid recovery took place. The author refers to the fact that most of the leading text-books upon diseases of the nose hardly mention acute empyema of the antrum of Highmore as caused by acute rhinitis. He is of opinion that this is a cause more frequently at work than is usually

supposed. As regards the value of the transillumination test, he thinks that it is of value in some cases to corroborate an already established diagnosis of empyema of the antrum, but that it cannot be regarded as a reliable method in the diagnosis of actual empyema, particularly if the other well-known symptoms of this affection are absent. *W. Milligan.*

Blair, Louis E. (Albany, N.Y.). — *Syphilis of the Naso-Pharynx, with Report of a Case of Tertiary Syphilis of the Sphenoid.* "Med. Rec.," April 15, 1893.

THE writer recalls the relations of the naso-pharynx, and expresses his opinion that tertiary syphilis in that region is apt to take on a destructive or spreading condition, contrary to the view held by Bosworth and a few other authors, but that it is a rare affection. The diagnosis has to be made from adenoid hypertrophies, from ozæna, tuberculosis, and lupus. [No reference is made to malignant disease and non-specific "necrosing ethmoiditis."—ED.] He attaches importance to the "brick-red arch of Pick"—two brick-red narrow bands running along the margin of the arcus palato-glossus, starting at the tonsil and stopping short equidistant from the root of the uvula. The "stench" also differs from that of ozæna in not being materially modified by deodorizing washes. Large doses of iodide of potassium may alone clear the uncertainty in doubtful cases. An illustrative case is quoted, in which a sequestrum consisting of half of the body of the sphenoid came away. The infection was acquired twelve years previously, and the nasal symptoms had lasted only a fortnight. After irrigation thrice daily through a hole in the palate, the swelling subsided and the sequestrum could be moved. It was ultimately dislodged, after ten days, by means of a laryngeal probe, and pushed into the mouth. He is opposed to violent attempts at removal, but recommends a free incision through the soft palate for the purpose of antiseptic irrigations and drainage. He prefers fuming nitric acid to nitrate of silver as an application to deep ulcers with tendency to phagedena. Much depends on constitutional treatment in the way of liberal diet, for "unless you have the blood in a reparative condition, it is useless to storm the patient with depressing drugs of mercury and iodide of potassium." [In this we cordially agree, and, as a matter of routine, when syphilitic lesions do not respond to specific treatment in poor out-patients, we take them into hospital, and, by feeding up, neutralize the inhibitory effect of the *res angustæ domi.*—ED.]. *Dundas Grant.*

Fearsley, P. Macleod (London). — *Hemorrhage from Post-Nasal Growths.* "Brit. Med. Journ.," July 22, 1893.

THE patient was a girl, aged eight years, who had had epistaxis for fourteen days before coming under notice. As she was puny, ill-developed, and had left otitis media purulenta, adenoid growths were diagnosed and removed, after which all bleeding ceased.

The statement made by the author that a good finger-nail is all that is required for the removal of these growths is certainly too sweeping. It is unnecessary to combat the remark in these pages beyond suggesting that contemporaries ought to display a little more discretion, so that even small errors may be eliminated. *W'm. Robertson.*

LARYNX.

Bark, J. (Liverpool).—*Laryngeal Papilloma.* Liverpool Med. Instit., April 6, 1893. “Liverpool Med. Chirurg. Journ.” July, 1893.

CASE of laryngeal papillomata in a man, aged thirty, shown after operation. Growths had been successfully removed by means of Gibbs' snare, cutting forceps, and Grant's guarded forceps. Of the last instrument the author speaks very highly, and regards it as “the most useful and safest instrument for removal of growths situated on the edges of the vocal cords.”

Middlemass Hunt.

Simpson, W. K. (New York).—*The Treatment of Non-Membranous Stenosis of the Larynx in the Adult by O'Dwyer's Method of Intubation, with Report of Five Cases.* “Med. Rec.,” April 15, 1893.

THE first case was one of syphilitic papillomata, almost occluding the larynx and producing attacks of dyspnoea. A tube was introduced and retained for three and a half days. Great improvement took place, and the growths were found to have disappeared almost entirely. The next was one of inflammatory thickening with intense dyspnoea. There were symptoms indicative of tuberculosis, but a cicatrix in the palate pointed to syphilis. A tube was introduced, and, although not well borne, was retained for six days, and on its removal the larynx was fairly normal. Nine months later the symptoms threatened to recur, and a gradual adduction of the cords and fixation of the arytenoids developed. On this and subsequent occasions intubation gave excellent results. The third case was one of chronic syphilitic stenosis, so extreme that only the smallest adult tube could be introduced. It was retained for eighteen days. The fourth was one of bilateral paralysis of the abductors, the patient when seen being almost comatose from morphia and atropia. On recovery the smallest tube was introduced, but only retained for nine hours. The medium one was then inserted, but the patient died with pneumonic symptoms. In the fifth case dyspnoea came on owing to inflammatory swelling in a larynx distorted by fracture. The smallest tube was introduced, and caused, in sixteen hours, sufficient dilatation to admit of the introduction of the medium one, which was retained for six days, and removed on account of pain in swallowing. Enlargement of the breathing space remained permanently.

Dundas Grant.

Onodi (Buda-Pesth).—*Contribution to the Study of Laryngeal Paralysis.* “Berliner Klin. Woch.,” 1893, Nos. 32 and 33.

WHEN the recurrent nerve is resected the glottis may still be closed by the function of the crico-thyroid muscle. The author has proved this to be the case by experiments upon dogs, by stimulating the crico-thyroid nerve after section of the recurrent nerve. But if the trachea is previously opened the stimulation of the crico-thyroid nerve cannot close the glottis, this muscle only possessing this function if its contraction is combined

with the effect of the air-pressure. Of special interest is the result of a *post-mortem* examination upon a patient with aortic aneurism and right complete with left incomplete laryngeal paralysis, and in which the author was able to demonstrate pathologically and anatomically that the fibres of the dilators of the larynx lost their irritability sooner than those of the constrictors. The right recurrent nerve contained degenerated and intact fibres, the left nerve was degenerated; the nerves of both postici were degenerated. The right thyro-arytenoid nerve contained both degenerated and intact fibres, the left one only degenerated fibres. The right lateral nerve was nearly intact, the left completely degenerated.

Michael.

Leo (Bonn).—*Death from Spasm of the Glottis in Hysteria Virilis.* “Deutsche Med. Woch.,” 1893, No. 37.

A PATIENT, twenty years old, who was a drunkard, always had headache. For two years he had had spasms in different muscles, sometimes attacks of vertigo and loss of consciousness, and clonic and tonic spasms of one half of the body. Such an attack, combined with severe inspiratory dyspnoea, ended fatally by suffocation. The *post-mortem* examination only showed strong adduction of the vocal cords. The author believes that the patient died from an acute hysterical glottic spasm. *Intra vitam*, a stenotic stridor was not heard, and no laryngoscopic examination was made.

Michael.

Raede (Berlin).—*Tracheotomy on account of Poisoning by Lysol.* “Deutsche Zeit. für Chir.,” Band 6, Heft 5 and 6.

A CHILD, ten months old, was given by mistake a spoonful of lysol instead of cod liver oil. The mouth was cauterized and swollen, respiration painful, cyanosis and stridor were present. Tracheotomy was followed by improvement in the respiratory symptoms. Some hours later there was excitement, universal spasms, collapse, and death followed. The *post-mortem* examination showed hypostasis of the lungs, swelling of the tongue and palate, swelling of the larynx, cauterized parts on the mucous membrane of the cricoid cartilage and the bifurcation, and greyish discolouration of the mucous membrane of the oesophagus. This case shows that lysol is not so harmless a drug as is generally believed.

Michael.

Pitts, B. (London).—*The Surgery of the Air-Passages and Thorax in Children.* “Brit. Med. Journ.,” July 15, 22, and 29, 1893.

IN these three lectures, delivered at the Royal College of Surgeons of England, Mr. Pitts carries the reader over a wide range of diseases as met with in hospital practice, and in the course of his remarks places certain operative measures—notably intubation—in a very clear light. Among the subjects treated are :

- Scalds of the throat and larynx.
- Compression of the trachea.
- Papilloma of larynx.
- Tracheotomy in children.
- Intubation.

What most concerns us is to be found in the first two lectures.

Scalds of the throat and larynx: Seventy-eight cases of such were admitted into St. Thomas's Hospital from 1872 to 1892, the average age being just over three years. In nearly all there was difficulty of respiration. In sixty-seven the accident occurred from inhaling steam or attempting to drink water from the spout of a kettle, or from a teapot spout, etc. Death resulted in fifteen cases, in twelve of which tracheotomy was performed. In three of this number, first intubation and then tracheotomy. Of the seventy-eight cases twenty-three came to tracheotomy or intubation. Eight recovered after tracheotomy; three after intubation. Age had little to do with the result. Scarification of the fauces and glottis were little employed, the difficulty being great in young children.

Intubation, it is pointed out, will take the place of tracheotomy in certain cases of oedema from scald where this is confined chiefly to the glottis. The swelling of the parts will increase the difficulty, and tracheotomy must be considered at once when intubation is unsuccessful. The rapidity with which intubation can be performed makes it incumbent on every surgeon to become familiar with the process. In four cases of scald, membrane was seen on the fauces. A difficulty in diagnosis is pointed out as existing in the fact that the history was to be obtained from the parents. Prognosis is not so gloomy as several writers state. Tracheotomy, or intubation, to be successful must be effected before exhaustion becomes extreme.

Compression of the trachea in children may be caused by abscess, enlarged glands, goitre, or foreign body in the oesophagus. Post-pharyngeal abscess may effect compression of the trachea or cause oedema glottidis. Such an abscess, more especially if dependent on vertebral disease, and hence apt to occasion a continuous drain, ought to be opened by an incision in the neck, but if the abscess is small and probably resulting from a caseous pharyngeal gland, as in children under one year old, then incision through the mouth may be practised with proper precautions. Where urgent dyspnoea is associated with the abscess, and time must be occupied in the dissection, tracheotomy had better be performed. In two hundred and four cases of post-pharyngeal abscess recorded by Bokai of Pesth, only seven were secondary to caries of the vertebrae.

Mr. Pitts alludes to a small tense cyst arising from the crico-thyroid membrane at the median line, blocking up the glottis, in a child fourteen days old. This caused suffocation, the tender age of the child precluding tracheotomy. In a female, aged sixteen, a congenital web was found in the larynx. Unless these webs cause difficulty in breathing, interference is not advisable. A laryngeal stenosis of such a character, it is well known, is little amenable to surgical treatment. Tracheotomy is the step to be taken, with a permanent canula. In dealing with papilloma of the larynx, Mr. Pitts refers to a condition in children which might very easily be mistaken for papilloma. In one instance in my own experience this particular state was diagnosed as papilloma. The prominent symptoms are, as Mr. Pitts points out, inspiratory dyspnoea, continuous even under chloroform, retraction of soft parts of chest, with a course of weeks, months, or even years. These cases are not to be confounded with laryngismus stridulus. As the cause of this condition Mr. Pitts supposes

a recurved and rigid state of the epiglottis. To most it will be difficult to imagine a recurved and at the same time a rigid state of the epiglottis. In eight or nine cases of this condition which I have met with and examined, no such condition of the epiglottis was appreciable to the finger. The way in which recovery was attained in these cases also pointed to a different etiology. Mr. Pitts further refers to adenoid vegetations and nasal obstruction from specific rhinitis as producing effects which must be considered where laryngeal symptoms are present.

Compound papillomata are often congenital and frequently give rise to no marked symptom until the child is of some age. The author arranges the treatment under the following heads :—

1. Endo-laryngeal removal.
2. Intubation.
3. Tracheotomy, with permanent canula to allow of spontaneous cure.
4. Tracheotomy and thyrotomy with removal of growths.
5. Tracheotomy and thyrotomy at the same operation.

The first is impracticable in children. Intubation is never advisable bleeding and irritation being inevitable. The spontaneous disappearance of the growths after tracheotomy was not experienced in the author's practice, the occurrence being discredited by him for the most part. In such cases Mr. Pitts recommends tracheotomy and permanent canula until the larynx becomes further developed.

If thyrotomy for removal of growths is determined on, then tracheotomy should be performed some time prior to the thyrotomy, which, if carefully performed, adds little risk to an ordinary tracheotomy, all bleeding into the trachea being prevented by small pieces of sponge being made to fit closely round the tracheal tube. Median incision of the cartilage is insisted upon as well as subsequent correct apposition. It is pointed out that the voice is affected, not by the exploration, but by the amount of tissue removed. Cocaine applied to the mucosa prevents spasm and mitigates bleeding. A fine Paquelin cautery is used for flat growths. In recurrent cases and secondary operations the author does not suture the cartilage, and with as favourable results.

Tracheal polypi are referred to as arising from irritation of the tracheal tube after diphtheria.

In referring to tracheotomy in children, the author points out that since the operation has been more intelligently considered and entertained better results have followed, and indicates clearly where tracheotomy is to be preferred to its more youthful rival, intubation. Durham's tube is advocated as the least likely instrument to produce ulceration. The notable increase of diphtheria in these sanitary times is referred to.

Out of a total of two hundred and thirty-nine tracheotomies sixty-six recovered, or 27·6 per cent. The variation in the mortality according to the severity of the epidemic renders statistics of results after tracheotomy or intubation most misleading unless given for a number of years in succession. Success largely lies in the after-treatment. Nasal feeding is better than enemata, and a dry, equable temperature than a moist, steamy atmosphere. A sponge kept warm and moist over the tube is recommended. A mercuric chloride spray is used, if at the same

time membrane is present on the pharynx or fauces, a drachm of a 1:1000 solution being used every three hours. In nasal cases, first a boracic douche and then the mercuric spray were used.

Intubation: The author can point to a record of 40 per cent. recoveries, and refers to the fact that, be it tracheotomy or intubation, the main cause of death is extension of membrane downwards; extensive ulceration of the larynx after intubation is quite exceptional. Intubation is not recommended for diphtheria arising in the course of measles or scarlet fever. Intubation is indicated at ages under two years. It is contra-indicated by inexperience and where the pharynx or naso-pharynx are involved.

Wm. Robertson.

Poppert (Giessen).—*Extirpation of the Larynx.* “Deutsche Med. Woch.,” 1893, No. 35.

A PATIENT, sixty-eight years old, was operated upon in August, 1892, and up to now (July, 1893) has been without recurrence. *Michael.*

Stickler, J. W. (Orange, N.J.)—*The Trachea opened longitudinally from a point just below the Isthmus of the Thyroid to its Bifurcation, and a Foreign Body removed from the Left Bronchus.* “Med. Rec.,” April 29, 1893.

AFTER low tracheotomy in a child with croup a pledget of iodoform gauze became detached from the probang to which it had been tied for the purpose of cleansing the trachea. It slipped down into a bronchus, and caused great distress and cyanosis. Dr. Stickler then exposed the trachea down to the sternum, securing all bleeding vessels on the way, and, with the forefinger as a director, slit the anterior wall down to the bifurcation. He passed the blades of angular forceps into the bronchi, and after several attempts removed the gauze from the left one. Complete relief followed, the tracheal and superficial incisions were brought together with sutures, the tube was re-inserted, and recovery took place.

Dundas Grant.

EAR.

Dennert (Berlin).—*The Significance of Quantity of Tone in Testing the Hearing.* “Archiv für Ohrenheilk.,” Band 34, Heft 3.

By this is meant, in addition to the intensity of the sound, the length of time it has to last in order to be perceived by the patient. It is measured in practice by passing a vibrating tuning-fork to and fro in front of the meatus at stated intervals, say once a second. The writer makes use of this principle, and professes to get more rapid and accurate statements from the patient than by merely allowing a fork held in position to die out in the usual way.

Dundas Grant.

Jankau, Ludwig. — *On the Differential Diagnosis of Middle-Ear and Labyrinthine Diseases.* “Archiv für Ohrenheilk.,” Band 34, Heft 3.

THE author holds that when two otoscopes connect the ears of the patient with those of the observer, while a tuning-fork in vibration is

placed on the vertex of the patient's cranium, the sound reaches the observer more loudly from the side on which the patient has middle-ear disease, and less loudly from that on which he has labyrinthine disease.

According to his observations, he found "Rinne" negative in fifty-six and positive in forty-four per cent. of cases of middle-ear affection; negative in sixty and positive in forty per cent. of cases of labyrinthine affection. On the other hand, he found by his own method the sound better heard through the affected ear in one hundred per cent. of cases of middle-ear disease, and through the less affected ear in one hundred per cent. of cases of disease of the sound-perceiving apparatus, including sclerosis, with beginning nerve-disease. [The writer calculates his percentage in nerve-affections from three cases only, these being bilateral, and giving a "negative Rinne" formula. The deduction is made, therefore, from too few and too doubtful cases to be of value.—ED.] Very important experiments on the heads of recently-killed animals are described. [The method calls for further trial.—ED.] *Dundas Grant.*

Katz, L. (Berlin).—*On a Method of rendering Macroscopic Preparations of the Organ of Hearing Transparent.* "Archiv für Ohrenheilk.", Band 34, Heft 3.

HE uses temporal bones which have been preserved partly in alcohol, partly in one-half per cent. of chromic acid, or one-half per cent. of chrom-osmium acid, the latter having the advantage of staining the nerves black. The preparations thus hardened are decalcified in thirty per cent. of hydrochloric acid solution, with one per cent. of chloride of palladium (the process, with repeated changing of the solution, taking from eight to fourteen days), then washed, and placed in ninety per cent. of alcohol. After a few days they are cut into the desired segments, which may be as thick as three-quarters of a centimetre, placed in absolute alcohol for twenty-four hours, then cleared in xylol or oil of cloves, and, lastly, embedded in Canada balsam, where in twenty-four hours they become perfectly transparent, and can be kept for inspection in glass cells, covered with thin glass plates. The human labyrinth, that of the white mouse, the membrana tympani, with its bony framework, including malleus, incus and attic, the promontory, with fenestrae and stapes, &c., are among the objects of greatest interest when thus prepared.

Dundas Grant.

Green, Orme (New York).—*A Series of Cases of New Growths of the Ear.* "Arch. of Otol.", July, 1893.

Epithelioma of the Auricle—Amputation—Recovery. The patient was sixty years of age. The epithelioma began two years before as a wart on the anthelix. Amputation was considered advisable from the firm adhesion of the growth to the cartilage.

Epithelioma of the Meatus—Removal of the Cartilaginous Meatus—Recurrence—Death. A woman, aged eighty, had otorrhea for two years, with a sense of fulness in the ear and pain in the parietal region. The meatus was filled with a firm growth. Relief followed its removal. Its structure consisted of fibrous tissue and round cells. It soon recurred. The auricle was turned forwards, and the cartilaginous meatus removed by operation. It was found to be epitheliomatous. Lastly, after further

recurrence, for which the whole auricle and tragus were removed, glandular enlargement took place, and extension to the brain with hemiplegia, resulting in death.

Primary Sarcoma of the Meatus—Removal—Recovery. After three weeks of ear-ache, preceded by a discharge of uncertain duration, there was found a round fleshy tumour on the anterior wall of the meatus of a girl of seventeen. The surrounding tissue was infiltrated, and the growth bled very freely on probing. It was removed and its site was cauterized, but recurrence took place. Again it was freely curetted away after the local subcutaneous injection of cocaine, which checked the haemorrhage, and did not recur. Its histological characters were those of giant-celled sarcoma of the teleangiectatic form.

Cavernous Angioma of the Auricle—Ligation of the External Carotid—Removal—Recovery. A very extreme case of pulsating angioma, diminished by the ligation. Amputation was advised on account of haemorrhage, and no return took place.

Angioma of the Tympanum. No signs till two years before coming under observation, when symptoms of inflammation called for paracentesis, which was followed by tremendous haemorrhage. Pressure by means of plugs in the meatus was practised. All of the membrane, except the anterior and upper quadrant, projected slightly and was of a reddish colour, deeper in some spots than in others. No landmarks were visible, but the light reflexes were seen to pulsate. This pulsation could be checked by compression of the carotid. Under compression by plugs for several hours a day, the pulsation diminished considerably for some time, giving every promise that a continuance of it might obliterate the circulation and produce a cure. The patient was forty years of age.

Angioma of Tragus. Following typhoid, a slight but gradually increasing discharge of blood from the ear was traced to an angiomatous spot on the inner surface of the tragus. It was removed by dissection, and the part healed readily.

Dundas Grant.

Rupp, Adolph (New York).—*A Contribution to the Pathology of Garrotting: A Case in which the External Auditory Canal was injured.* “Med. Rec.,” June 17, 1893.

THE ear injured was the *right* one, in which “a small gouged-out ulcer, “about one quarter of an inch long, and half that in width, could be seen “located just a little diagonally on the antero-inferior wall of the external “auditory canal, and about two-fifths of an inch from the meatic (*sic*) “orifice.” This was attributed to violence inflicted by a nail of the garrotter’s *left* hand when his left arm was, as usual, flung round the victim’s neck *from behind*.

Dundas Grant.

Cheatle, Arthur (London).—*Hypertrophic Condition of the Tympanic Mucous Membrane in an Infant.* “Arch. of Otol.” July, 1893.

IN a child aged eight months, who died of croup, the tympanum was examined, and the mucous membrane was found to be much thickened. Microscopically, the submucous tissue immediately below the lining epithelium was simply a mass of young granulation tissue, the lining

epithelium remaining in many places intact, the deeper layer retaining its fibrous appearance, with round cells scattered throughout. The writer considers this case one of "early hypertrophic catarrh, commencing *de novo* in the ears, as the condition of the naso-pharynx was comparatively healthy; if all the new tissues had subsequently become organized and contracted, complete deafness and deaf-mutism must have resulted."

Dundas Grant.

Wagenhäuser (Tübingen).—*Condition of the Labyrinth in a Case of Leucæmic Deafness.* "Archiv für Ohrenheilk.", Band 34, Heft 3.

THE ear had not been examined during life, but the history was that the patient began to suffer from abdominal trouble in April, 1889, and became perfectly deaf in both ears after a "cold water cure" in October, 1890. The other signs of leucæmia, blood extravasations, &c., were present, and she died in May, 1891. On *post-mortem* examination, the outer and middle ears were normal, the outer wall of the labyrinth showing only slight congestion. On section of the decalcified cochlea, the knife struck a kernel of hard bone, which resisted all reasonable attempts at further decalcification. The scala vestibuli was in its upper part filled with an extravasation, showing red and white corpuscles, in its lower part with masses of granular material, which filled also the whole of the scala tympani, and in great part the cochlear duct. Corti's cells and Reissner's membrane were mostly well-preserved. There was considerable exudation in the middle coil of the ganglionic canal. In the utricle there was free exudation and new-formed connective tissue between it and the inner wall of the labyrinth, the periosteum of which was much thickened. The cisterna and the inferior ampulla were filled with exudation. In the semicircular canals the peri-lymphatic channels were filled with new connective tissue, and in some parts with new osseous formations. The membranous canals were only slightly invaded.

The primary occurrence is believed by Wagenhäuser to be a haemorrhagic extravasation, leading secondarily to inflammatory changes.

Dundas Grant.

Vadakin.—*Rheumatism as a Cause of Partial Deafness with Tinnitus.* "New York Med. Journ.", July 15, 1893.

THE patient was apparently rheumatic, and was in other ways ill, but when the writer tells us that he found the external auditory meatus filled with a dark, thick, tar-like substance, and that after this was removed she heard better, we are inclined to believe that we have heard of, and even seen, cases of deafness from a like cause without the rheumatism—in fact, we do not look on it as a case of *sincere* rheumatism.

B. J. Baron.

Ostmann (Königsberg).—*The Importance of the Fatty Layer in the Lateral Wall of the Eustachian Tube. A Contribution to the Question of Autophony.* "Archiv für Ohrenheilk.", Band 34, Heft 3.

IN the lateral wall of the normal Eustachian tube there is a cushion of fat of about one and a half millimetres in thickness, which thins off towards

the cartilaginous "hook." This diminishes under circumstances leading to general emaciation, and, other things being equal, the Eustachian tube is then abnormally patent. In a very few cases of autophony (the patient hearing his own voice with abnormal and distressing loudness) this cushion has been found to have atrophied, and the lumen of the tube to be opened to an unmistakably abnormal degree, as shown in the illustration of an actual section. The comparative rarity of autophony in the numerous cases of even extreme emaciation is accounted for by the relative concomitant weakness of the patient's voice, and by the inactivity of the weakened tube-opening muscles. The fatty cushion probably acts as a protection to the middle ear, and when it is wasted, as in the later stages of the more protracted fevers, micrococcus invasion from the pharynx is facilitated, and the occurrence of median otitis at such periods is explained.

Dundas Grant.

Blomfield, James E.—*Otitis Media Purulenta : Pyæmia; Recovery.* “Lancet,” .
Aug. 19, 1893.

THE patient, a pale girl, aged eleven, was first seen by the author in September of last year. She was suffering from purulent otitis media of long standing, on both sides. Treatment was undertaken, and the discharge rapidly dried up. In November she returned, complaining of pain in the left ear and left temporal region. A small quantity of foul-smelling discharge was found in the meatus. The right ear was dry. The following day she was very sick and had three rigors. The next day the pupils were found dilated, and reacting slowly to light. There was no tenderness or redness over the mastoid process. On November 10th the sickness had stopped, but she had two rigors. The pupils were still dilated, and did not react to light, and both optic discs were found blurred. From this date she grew steadily worse. There were three or four rigors in the twenty-four hours, and the tongue became dry and red. There was also constant pain in the left arm. Upon November 21st there was some oedema and redness behind the ear, and upon the 25th an incision was made over the mastoid process, exposing bare bone and a quantity of fetid pus. After this it was possible to syringe lotion from the incision through the meatus. The same evening another rigor took place, and the following day another, with a temperature of 105.2°. It was now noticed that a swelling had occurred in the neck, commencing at the angle of the jaw and extending down to the clavicle. Further operative interference was suggested but declined. The course of the disease ran on much as before, until December 4th, when a distinct change for the better took place. During the preceding night there had been a copious discharge of foul-smelling pus from the ear. From this date she began to improve, and made a complete recovery.

W. Milligan.

Love, J. Kerr (Glasgow).—*The Pathology of Deaf-Mutism.* “Arch. of Otol.,
July, 1893.

EXAMINATION of one hundred and seventy-five children in the Institution for the Deaf and Dumb at Glasgow gave the following results:—

	Totally deaf.	Heard loud noises,	Distinguished voices.	Too young for testing.	Dumb, not deaf.
Congenital...	72	7	32	10	22
Acquired ...	81	2	36	20	21
Doubtful ...	22	—	13	3	6
	—	—	—	—	—
	175	9	81	33	49
					3

The congenital cases thus showed a larger percentage of extreme deafness.

The CAUSES of congenital deaf-mutism are not dealt with, but those of the *acquired* were :—

Meningitis and brain fever.....	13	One half of the total number of cases of which the cause is specified.
Convulsions, fits, and teething....	7	
Falls and injuries to head	11	
Measles	10	
Scarlet fever	3	
Whooping cough	1	The greater destructiveness of measles than of scarlet fever is remarkable.
Other fevers	3	
Ear affections proper (suppu- rative)	8	
Syphilis	2	
Cold	2	
Inflammation of lungs	1	
Fright	1	
Unknown or unspecified.....	19	
	81	

The CONDITION OF THE EARS in the various classes of cases is shown below :—

	Membranes Normal.	Chronic suppurative inflammation.	Chronic non- suppurative catarrh.	Unex- amined.	Meatus too narrow for examination.
Congenital	26	11	33	—	2
Acquired.....	28	18	34	1	—
Meningitis and brain affections	10	2	7	1	—
Falls and head injuries	5	1	5	—	—
Measles	4	4	2	—	—
Scarlet fever	1	1	1	—	—
Ear affections proper	—	4	4	—	—
Doubtful	7	3	11	1	—

Dr. Love thinks that some of the meningitic and "brain" cases were probably cases of primary labyrinthitis rather than of recoveries from brain disease, and that, though most of the exanthematic cases were tympanic, with secondary involvement of the internal ear, the latter was in some of them directly infected without the mediation of the middle ear. There was no case of malformation of the auricle. Distinct pharyngeal disease was present in about seventy per cent. of all the cases.

Dundas Grant.

Mygind, Holger (Copenhagen).—*Short Description of the Temporal Bones of Deaf-Mutes belonging to the Pathological Museum of the Copenhagen University.* “Arch. of Otol.” July, 1893.

THIS interesting collection contains one hundred and ten specimens from fifty-five deaf-mutes, and was presented by the authorities of the Deaf-Mute Institution to the University in 1844. Dr. Mygind has re-examined them and revised the descriptions, which are given in his paper. Thirty specimens were from fifteen cases of acquired deaf-mutism, sixty-six from thirty-three congenital cases, and fourteen from seven uncertain ones. In more than one-half of the cases the osseous parts showed no abnormality, and the presumption is that too little attention was paid to the soft parts (the examinations were made between 1824 and 1837), and that the lesions were situated in the latter, especially as there is no report of the presence of such abnormalities as atrophy or degeneration of the auditory nerve, absence or other abnormality of the membranous labyrinth or ankylosis of the stapes; all of frequent occurrence in deaf-mutes. This is most notable in the congenital cases, in which it must be allowed the changes found are known to be less in extent and severity than in the acquired. Only exceptionally were the congenital lesions due to arrest of development, being traceable to foetal inflammation causing partial destruction of the internal osseous structure of the labyrinth and often formation of osseous tissue. In the acquired cases there was frequently deposition of osseous tissue in the natural cavities. [This paper is an interesting addition to Dr. Mygind's valuable studies of deaf-mutism, which have become classical.—ED.]

Dundas Grant.

Caldwell.—*Transillumination of the Mastoid Cells as a Means of Diagnosis of Mastoiditis Interna Suppurativa.* “New York Med. Journ.” July 15, 1893.

THE apparatus to be used consists of a small electric lamp of two or three candle power, protected by thin rubber tubing fenestrated at one side and made to fit snugly at the meatus by a washer of larger tubing.

This lamp is inserted well into the ear with the fenestra directed backwards. If the mastoid be healthy, a ruddy glow extends from the apex to the lateral sinus. If pus be present in any part, that part will be dull. Various authors are quoted as having described cases in which no *external* signs were present, when considerable mischief existed in the mastoid cells. If the meatus be small or swollen, the lamp can be placed against the outside of the mastoid, and the light observed shining into the auditory canal.

B. J. Baron.

Green, Orme (New York).—*Ostoma of the Mastoid.* “Arch. of Otol.” July, 1893.

TWO cases of young male adults, who had been somewhat deaf in one ear for several years without ever having ear-ache or discharge. In each, after some signs of inflammation for about ten days, a growth was found blocking the meatus, impervious to a needle and susceptible of a very slight amount of movement. The symptoms getting worse, the auricle was displaced forwards, and at once a bony growth could be easily enucleated from the front of the mastoid, where it lay bathed in pus,

imbedded in a cavity with carious walls. The tumours were, in their centre at least, composed of well-developed bone. Dr. Orme Green considers them "true neoplasms of slow, non-inflammatory growths, and possibly of foetal origin," and, from their structure, the name "osteoma" seems most appropriate.

Dundas Grant.

Max Thorner.—*Caries of the Entire Pyramid of the Temporal Bone.* "The Cincinnati Lancet Clinic," June 10, 1893.

THE case is that of a child who comes of phthisical stock. She had a discharge from the ear one month after birth, and when two years old the auditory canal was found to be full of polypoid granulations. On removing these with a snare an opening in the posterior and upper wall of the auditory canal leading into a cavity filled with necrotic bone was found. The probe did not enter the cavity from the cavum tympani. The upper plate of the mastoid process was removed along with the whole pyramid. No tubercle bacilli were found. A year afterwards complete healing had taken place. It is worthy of note that no reaction followed the thorough scraping, etc., of the parts, and that cure followed when the prognosis was so unfavourable.

B. J. Baron.

Schroeder, S. P. (Hoyleton, Ill., U.S.A.)—*Mastoid Abscess.* "Med. News," Feb. 25, 1893.

THE signs of extension of mastoid disease in an outward, inward, upward, downward, backward, or forward direction are enumerated. The writer strongly opposes the use of hot injections into the meatus, or of poultices over the ear, or of plugging of the ear with boric acid. He objects to hydrogen peroxide as thickening the pus, preventing its free exit. On the other hand, existing fistulous openings should be enlarged if too small for free drainage, and in their absence the antrum should be opened. He thinks chiselling will supersede drilling operations. *Dundas Grant.*

Sheppard, J. E. (Brooklyn).—*Three Cases of Unintentional Opening of the Lateral Sinus.* "Arch. of Otol.", July, 1893.

IN one case, while the cavity exposed by the removal of the cortex of the mastoid was being curetted, there was a sudden large flow of venous blood, which soon ceased with pressure, and allowed the curetting to be carefully finished. In the second, plugging with iodoform gauze was successfully practised. The third was one of post-influenzal mastoiditis, in which pus was found immediately under the cortex, and while a communication with the antrum was being made the haemorrhage took place and required plugging. In none was there any subsequent trouble, excellent recoveries taking place. Dr. Sheppard draws attention to his third case as answering to Politzer's description of post-influenzal subcortical mastoid abscess, and thinks it would have been well to have stopped short after opening the superficial cells. In all probability the sinus was penetrated by a splinter of bone.

Dundas Grant.

SOCIETY REPORTS.

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.

April Meeting. ("Med. Rec." May 20, 1893.)

HOWARD, W. T., Jr.—*Report of a Case of Diphtheria of the Heart.*

A man, thirty-four years of age, was admitted to the John Hopkins Hospital on November 7th, 1892. He was a labourer. On admission he had weakness, diarrhoea, and pain. His family history was negative. He was well built, and said he had never been ill before. He had a temperature of $101\frac{1}{2}$ ° F., pulse 86, lungs were normal, apex-beat in the fifth intercostal space on the left side, heart-sounds clear. After three days his temperature was 100° F. in the morning, and 103° F. in the evening. His spleen was not enlarged. The man grew worse, and died on the seventeenth day of his stay in hospital. At the autopsy there was found a large thrombus in the mitral valve of the heart, and extending into the cavity; the whole spleen was an infarction, and there were numerous infarctions in the kidneys. Cover-slip preparations were made from this thrombus in the heart, and an organism was found morphologically indistinguishable from the Klebs-Loeffler bacillus. Cultures were made with the same results. This bacillus has not so far killed animals, but it is a pus producer. Its first action seems to be death to the cells.

Dr. WM. H. WELCH said Dr. Howard's observation was one of unique interest. It recalled the old name of diphtheritic endocarditis, which, however, was based on anatomical resemblances. The bacillus, found in abundance and in pure cultures in the cardiac vegetations, the splenic and the renal infarctions, differed in no respect morphologically or in cultures from the Klebs-Loeffler bacillus of diphtheria. It had been carefully studied, not only by Dr. Howard and himself, but also by Dr. Abbott, of Philadelphia, and Dr. Councilman, of Boston. The failure to prove it pathogenic to guinea-pigs did not suffice to distinguish the bacillus from the genuine bacillus diphtheriae, for it had been shown by Roux and Yersin, Abbott and others that the latter may be also devoid of such pathogenic power at the time of isolation and culture. Dr. Howard's case was the first to be recorded in which the bacillus diphtheriae, or an organism closely resembling it, had been found as the cause of malignant endocarditis. This observation was furthermore of interest as an example of the penetration into the circulation and the internal organs of the bacillus of diphtheria.

AMERICAN SURGICAL ASSOCIATION.

May 30 to June 1. ("Med. Rec." June 17, 1893.)

ROSWELL PARK (Buffalo).—*Report of an Attempted Bloodless Operation for Malignant Polypus springing from the Base of the Skull.*

The case was one of rapidly growing malignant tumour completely filling the pharynx, in which operation was attempted at the patient's

request. In order to lessen danger from haemorrhage, he adopted the method suggested by Senn of isolating the trachea and passing a rubber tourniquet around the balance of the neck. While there was no arterial haemorrhage, there was excessive venous bleeding. The jaw was resected and the malignant material removed. During the operation respiration ceased, and efforts at restoration were required for forty-five minutes before the operation could be completed. The patient left the table in apparently good condition, but died the next morning from shock, there having been no bleeding.

AMERICAN MEDICAL ASSOCIATION.**PROCEEDINGS OF SECTION ON DISEASES OF CHILDREN.**

Milwaukee, June 6-8, 1893.

DR. C. G. JENNINGS delivered the inaugural address.

The largest portion of the address was devoted to a review of the recent investigations into the etiology of diphtheria and the relation which it bears to the various pseudo-membranous throat affections. He emphasized the difficulty of accurately diagnosing diphtheria from its imitators by clinical means alone, and urged the necessity of bacteriological examinations. In cases of doubt and when these examinations cannot be made the doctrine of isolation should be pushed to its furthest-most limits.

Dr. W. A. DIXON (Ripley, Ohio) read a paper entitled *Observations on Isolated Cases of Diphtheria.*

Diphtheria is a frequent and most destructive disease. Sanitary conditions seem to have little to do with its prevalence. It has always displayed a marked tendency to prevail in sparsely populated districts rather than in centres of population. In this country it occurs as often on the hill-top as in the crowded city tenement houses. Observations go to show that country districts suffer more than populous cities. Pathological societies are replete with statistics showing its relation and communicability from the lower animals to man. In this country Dr. A. Jacobi says probably the possibility of contracting diphtheria directly from animals is very much greater than the danger from water or milk.

Dr. J. Lewis Smith says observations are accumulating which show that diphtheria, or a disease closely resembling it, occurs among animals. Since such distinguished observers admit that diphtheria may be contracted from the lower animals, I am encouraged to hold from my own observations that isolated cases in the country or city may be accounted for in this way.

I will cite a few cases of isolated diphtheria to show that it is reasonable to conclude that children have been infected from birds, fowls, pigeons, and cats. In 1865 diphtheria prevailed as an epidemic in Southern Ohio, was malignant in character and very fatal in its ravages. Preceding and at this period there was great fatality among the hogs and chickens in that region. In the family of Mr. G. the children were seized with violent symptoms of diphtheria. The chickens were dying with a disease

affecting the throat. Some of them were brought into the house, where most of them died. The children spent most of their time with the sick chickens.

Another case was a child whose home was perfectly isolated. There was no possible chance of other infection. The child had a pet cat which it nursed continually, which had been ill some days prior to the child's attack and had a discharge from the nostrils. Many more similar cases which have occurred in my practice might be cited. In quite every year from that time forward I have noted instances of diphtheria in isolated homes, where malignant sickness occurred among the animals. Recently my convictions have been so strong in favour of this animal infection theory that I inquire and examine into the condition of the animals belonging to the place.

There is no reasonable way to account for the infection in all these cases except we accept the animal infection theory. It would require extraordinary strong proof to dissuade me from the convictions expressed in this paper.

Dr. G. BENSON DUNMIRE (Philadelphia) then read a paper on *Some Observations in Treating Cases of Diphtheria*, in which he insisted upon enforced isolation, skilled attendance, proper food, and prompt local and constitutional treatment.

Dr. F. E. WAXHAM (Chicago) then presented a paper on *The Therapeutics of Diphtheria* with the following statistics of intubation.

	Cases.	Recoveries.	Percentage.
Under 1 year.....	13	.....	30·76
1 yr.	62	.....	20·96
2	81	.....	30·86
3	85	.....	37·64
4	90	.....	38·88
5	43	.....	44·18
6	26	.....	26·92
7	29	.....	33·33
8	13	.....	61·53
9	7	.....	42·85
10	7	.....	42·85
11	1	.....	100·00
12	3	.....	00·00
13	1	.....	00·00
14	1	.....	00·00
20	1	.....	00·00
36	1	.....	00·00
43	1	.....	100·00
60	1	.....	00·00
	466	161	34·54

It is to be hoped that the inoculation treatment of diphtheria will soon replace all other methods. There are still great difficulties to overcome before this method can be applied to man. I shall not occupy your time

in the discussion of preventive treatment. We may confine ourselves in the treatment of diphtheria to the following four heads : (1) Nourishment, (2) Stimulation, (3) Internal medication, (4) Local antisepsis. The importance of feeding is often overlooked, especially in regard to the amount that is taken. On account of loss of appetite, the patient may refuse all kinds of food. In this case, we may resort to peptonized food by enemata or by the introduction of a catheter into the throat. A semi-elastic catheter may be left for some time in this position. Milk and stimulants may be introduced through the catheter, and many lives may be thus saved. Mild cases do not demand the use of alcoholic stimulants, but severe cases do demand it. Alcohol is a great destroyer of microbes. When required it should be given freely, at least one or two teaspoonfuls every hour or half-hour according to the urgency of the case. Strychnine, musk, or ammonia, if necessary, should be given. The tincture of the chloride of iron is a valuable agent ; by its use the red blood-corpuscles are greatly increased in number. It should be given in frequent and full doses—ten, fifteen, or twenty drops to young children—and should be repeated every hour or half-hour. The bichloride of mercury, potash, etc., may be given, but in severe cases of diphtheria they are too irritating to the kidneys. The local antiseptic treatment is of great importance, carbolic acid, bichloride of mercury, pyro-tannin, chlorine water, or peroxide of hydrogen may be used. The results, however, will not depend so much upon the remedy employed as upon the method of employment. The bichloride of mercury is one of the most powerful germicides. In the strength of 1-4000 it is not irritating. Peroxide of hydrogen 1-4 is not irritating. If efficient the spray is to be preferred to the douche. One of the most efficient means of flushing the nasal cavities is by the use of the soft catheter. The indications in the treatment of diphtheria are to destroy the bacilli and to support the system by abundant nourishment, free stimulation, and full and frequent doses of iron.

Discussion was opened by Dr. J. A. LARRABEE (Louisville, Ky.).

It is always well to give the patient the benefit of the doubt, and treat the case from the first as though it were a true case of diphtheria until all doubt is removed. He did not agree with one of the speakers that filth plays no important rôle in the production of diphtheria. He thought we have some points by which we can diagnose a case rather early in its course. The constitutional disturbances of tonsillitis are sometimes very grave, but they are not followed by the blood changes as in diphtheria. He thought albuminuria is present in almost all cases of diphtheria in the second stage. Glandular enlargements are present in diphtheria. We cannot rely upon the appearance of the pseudo-membrane. He thoroughly agreed that many cases have been caused by animal infection. In regard to the preventive treatment he preferred the tincture of the chloride of iron, which should be given during the whole course of the disease. It is usually not given in large enough amount. He deemed it the best protection against the disease. It increases the number of red blood-corpuscles, and thus renders it possible for a larger amount of

oxygen to be taken into the body. He is of the opinion that if ten to twenty drop doses of the tincture of chloride of iron are frequently given to children, the appetite will remain good. He did not think that we have a better diuretic than the chloride of iron. In regard to the local treatment, it must precede or at least accompany the constitutional treatment. Corrosive sublimate is, he believed, objectionable. If it is used as a gargle or spray, we are very apt to have some cases of death from it. He has used the peroxide of hydrogen, and if carefully used it does very well. Too strong solutions are apt to produce a slough. It is almost impossible to spray or irrigate a child's throat, and for this reason he would recommend the insufflation of boracic acid and papoid; nitrate of silver is also entitled to consideration. One case of diphtheria does not secure immunity for the patient, and hence he thought the inoculation method doubtful, although he was very hopeful.

Dr. G. S. GREENE (Buffalo, N.Y.) believed in giving the tincture of chloride of iron in large doses along with quinine and whisky. Of course, nourishment should not be overlooked. As a local treatment, the persulphate of iron in a saturated solution can be used. In regard to the prophylaxis, he believed in the use of whisky and chloride of iron; he also thought peroxide of hydrogen a good agent.

Dr. FOSTER (Chicago, Ill.) was sorry to see the chloride of mercury trampled down and the tincture of the chloride of iron used both internally and externally. There have been many good results from the use of hydrochloric acid and the chlorate of potassium. He believed much of the good derived from the use of bichloride of mercury is due to the chlorine present.

Dr. G. A. LEAN (Pennsylvania) did not believe that the bichloride of mercury is usually given in the best way, and that it is frequently not given in sufficiently large doses. The chloride of iron, hydrochloric acid and the chlorate of potassium, which were in vogue so many years ago, are still the principal agents in the treatment of this disease.

Dr. DOUGLASS (Detroit, Mich.) thought we should not be too enthusiastic in the use of iron unless we are sure there is a sufficient amount of fluid in the stomach to render it sufficiently dilute to prevent its escharotic action, thus preventing vomiting. He thought if the tonsils are much inflamed and swollen and encroach upon the air passages, it is well to cut into them. He had never had this operation followed by septic poisoning. He had found some of the tonsils soft and others hard, and in some it was surprising how far the inflammatory action extended down into the tissues.

Dr. COOK (Chicago) had treated many cases with pyro-tannin with good results. It has not been his experience to find albuminuria in all true cases of diphtheria. Does the use of bichloride of mercury increase the albumen in the urine?

Dr. INGALLS (Chicago, Ill.) thought our present treatment is about the same as our forefathers used. He is of the opinion that the tincture of the chloride of iron is a very good agent in the treatment of diphtheria. He thought it well to combine it with glycerine and the syrup of tolu. Before giving this combination a draught of water should be taken, and

then the medicine held in the throat some little time before swallowing : in this way we get some local effects from it. If the heart begins to fail nux vomica is the best agent. If laryngitis presents itself he thought the mild chloride of mercury should be given until the bowels are moved. Nourishment should never be neglected, milk being the best. A child eight years old should have at least eight quarts a day.

Dr. G. B. DUNMIRE (Philadelphia, Pa.) was a strong advocate of the use of bichloride of mercury.

Dr. W. A. DIXON (Ripley, Ohio) believed whisky valuable because it stimulates and carries the patient over a period of depression. Mercury is also valuable. We should use our judgment in the treatment of diphtheria, and not think we are tied to any one remedy. The tincture of chloride of iron has been very satisfactory to him. So also has whisky and bichloride of mercury. Give plenty of nourishment.

Dr. F. E. WAXHAM (Chicago, Ill.) wished to say, in regard to the use of aseptic instruments, that cases of diphtheria vary greatly in virulence and for that reason, along with many others, aseptic instruments should be used.

REVIEW.

Rosenthal, Carl (Berlin).—*Die Erkrankungen der Nase deren Nebenhöhlen, des Nasenrachenraums und des Kehlkopfs.* Zweiter Band : Die Erkrankungen des Kehlkopfs. (“Diseases of the Nose, the Accessory Cavities, the Naso-Pharynx, and the Larynx.”) Second Volume : Diseases of the Larynx. With 68 Illustrations in the Text. Berlin : Hirschwald. 1893. Pp. 372.

IN the review upon the first volume of this work, we have already remarked that it is written in a very practical manner, and that it fulfils the promise of the author in the preface to publish a book which appropriately introduces rhino-laryngological science to the student and the medical practitioner. The author begins with an extensive review of laryngological literature comprising thirty-six pages, then treats of the anatomy and physiology of the larynx with reference to numerous publications on this subject. In the next chapter he describes the methods of examination, the difficulties caused by hyperæsthesia or anatomical anomalies, the illuminating apparatus, phantoms for exercise, and the normal laryngeal appearances. In the chapter on inflammatory affections of the larynx, laryngitis sicca acuta is reported as being a very common disease in Northern Germany, which is not mentioned in most laryngological treatises. Chronic laryngeal catarrh can never pass into laryngeal phthisis, in spite of the opposite view held by many authors. The important subject of submucous laryngitis, often ending in abscess, is also treated of minutely. The description of laryngitis hypoglottica (chorditis inferior hypertrophica) is followed by an enumeration of the methods of dilatation ; and croup, which is regarded by the author as identical with diphtheria, is followed by a description of the operation of tracheotomy. The

affections of the larynx in acute and chronic general diseases, lupus, tuberculosis and syphilis of the organ, are treated satisfactorily. The same may be said of benign and malignant neoplasms, and of the appendix upon nervous diseases of the larynx. The *technique* and the description of the instruments are referred to in the different chapters in reference to any operation which is mentioned. It would be more practical to include them in a special chapter, or, as is done in some other books, to collect them in the chapter upon neoplasms. *Michael.*

Obituary.

JULIUS HEINRICH SOMMERBRODT.

JULIUS HEINRICH SOMMERBRODT died in Breslau on August 14th last. Born on February 28th, 1839, in Schweideutz, and promoted in 1861, he became assistant in the clinics of Lebert and Middeldorf, and was created a professor in 1878. Most of his publications treat of questions of internal medicine, especially of the physiology and pathology of the circulatory apparatus, the etiology of tuberculosis ("Hat das an die Luftwege ergossene Blut aetiologische Bedeutung für die Lungenschwindsucht?"—"Virchow's Archiv," 1835), and the treatment of this disease. During recent years he recommended creosote as a necessary treatment of phthisis, and his publications have had the effect that this drug is now the most generally employed in the treatment of tuberculosis. Of special laryngological interest are some publications on laryngeal phthisis and benign neoplasms of the larynx. *Michael.*

NOTES.

LARYNGOLOGY IN BRISTOL.

A COMPLETE department for the treatment of diseases of the throat and nose has recently been created by the Governors of the Bristol General Hospital. Dr. Barclay Baron has been appointed physician to the department, having resigned his post of general physician in order to limit his work to the treatment of throat, nose and ear diseases. We understand that Dr. Baron created this department some years ago by arrangement with his colleagues, but we consider that the managers of the Bristol General Hospital have proved themselves desirous of keeping abreast of scientific progress in thus placing our specialty on a level with ophthalmic surgery, which has been a special department for a considerable time. We congratulate Dr. Baron on his appointment, and wish him all success in his special work.

IZAL.

FROM the favourable effect of izal in a case of ozæna, caught at the early stage of the process, I am induced to bring it before the notice of readers of the Journal, so that experience on the use of this new drug may be tested. In the case referred to, various local medicaments had been tried, such as canthos cotton, trichloracetic acid, galvano-cautery, etc., but without much success, and at this juncture I read the favourable notices regarding izal, and at once put it to the test in this refractory case. After three weeks' use of the drug, which I placed in the patient's hands for use, merely directing simple douching, a very favourable action on the disease was noticeable. On this slender basis I place the notice. The strength of the lotion in use is five per cent. izal. *Wm. Robertson.*

NEW PREPARATIONS.

Messrs. Allen and Hanburys.

Effervescent Granules of—

1. Phosphate of iron.
- 2 Ammonio-citrate of iron.
3. Sulphate of soda.
4. Citrate of potash.
5. Antipyrin.
6. Citrate of magnesia.

We have received samples of the above from this firm of pharmaceutical chemists. There are two new features about these preparations: (1) They are granulated in such a manner that the substance dissolves readily and completely on the addition of water, and without stirring, and the granules are of equal size and free from "lumpiness." (2) Each bottle is closed with a measured stopper, which contains the actual dose. This is such an effective and simple idea that the marvel is that it has not been adopted before. We are highly pleased with these preparations. They are much in advance of other effervescent preparations, and the measured stoppers are of the greatest convenience.



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THE SIMPLEST AND MOST PRACTICAL ELECTRIC
APPARATUS.¹

ESPECIALLY FOR GALVANO-CAUTERY OPERATIONS.

By ARTHUR G. HOBBS, M.D., Atlanta, Ga.,

Member of the Pan-American Medical Congress; of the American Medical Association; Ex-President of the American Rhinological Association; Member of the Georgia State Medical Association; and Fellow of the Atlanta Society of Medicine, etc., etc.

THE little apparatus that I am using, especially for galvano-cautery operations, is the only perfect appliance for that purpose in my knowledge. It has been used in my own and assistants' rooms perhaps a thousand or more times during the last year, and in no instance has it ever failed us, or caused us any care or trouble. Indeed, no thought of its presence is ever suggested until it is needed for actual use, quite unlike any of its predecessors, even the best of which require an occasional charging. It is small and compact, contained in a mahogany box eight inches long, four inches thick, and four inches deep, and is securely screwed to the wall at a convenient distance from the operator's chair.

The wires from an alternating current of fifty-two volts, the most generally used circuit, particularly in the medium and smaller cities, are brought into the operating room from the street wires, and attached at each upper corner of the little box. The conducting wires are similarly attached to the lower corners.

The apparatus is now ready to be used for the cautery, the magnet, or for the small incandescent lamp, and it remains always and ever ready. When the moment for using it arrives it is only necessary, first

¹ Read at the Section on Laryngology and Rhinology, Sept. 6th, 1893, Washington, D.C.

to turn a screw projecting from its nearer surface with the left hand, while the instrument is held with the right. It thus serves as a gauge for measuring out the exact quantity of electro-motive force in the form of heat, magnet power, or light, by modifying the fifty-two volts, conducted to it from the nearest street transformer, into the fractional number of volts that may be required for the occasion.

As the electro-motive force in actual use with this transformer is acquired by induction, and is not in direct contact with the initial current, there can be no possible danger to either the patient or the operator, even if the initial wires should by accident come in contact with more powerful wires.

The electro-motive force can be gauged between one and sixteen volts by the screw, and the ampèrage can be determined by the resistance of the conducting wire. The cost of the electric supply is very small, perhaps two or three dollars per month, for all ordinary purposes, including the rent of the meter. It is quite as easy, by modifying the force with a slight turn of the screw, to adapt it to the forehead lamp in ear operations, and to the still smaller lamps used for translucent and direct illuminations in the small cavities, as in antrum diagnoses.

A much smaller cautery handle than the conventional one is more convenient for actual use, while, in addition to this, it may be permanently attached to the conducting cord, where it is always at hand, requiring only to change the point to suit the occasion. The larger handles are necessary, however, for the wire loop operations.

The needle and a very narrow blade are the only cautery points used in my office, and in all cases they are made to enter at the most prominent part of the hypertrophied tissue, penetrate down to the bone with a white heat, and then withdrawn through the same puncture while the point is still hot. In no case is a wholesale destruction of the mucous membrane ever produced by applying the flat surface of the blade to the protruding part.

The needle and the narrow blade produce little or no pain when an application of a ten or twenty per cent. solution of cocaine has been locally applied on a cotton probe ten minutes before the operation. The annoying constitutional symptoms that not infrequently follow even a weak spray, are rarely encountered when a many times stronger solution is applied to a limited area of mucous membrane surface. Its easy control renders it the most reliable and certain means for making cautery operations on the cornea, because of the small and exact amount of electro-motive force required to heat the fine points used for this purpose.

This means of treating corneal ulcers, and, I may also add, of reducing the corneal part of a pterygium, is not only less painful than any other, but the resulting cicatrix is more transparent, provided the cautery is not allowed to touch the healthy cornea. A pterygium will in some cases need no further operative procedure, although it will usually be necessary, in addition to the cautery, to sever the vascular supply without excising any part of the hypertrophied conjunctiva, except where it is decidedly thickened.

The magnet in general use is constructed for the continuous current,

yet it can be charged for the lighter uses with the alternating current. My electrician (who devised this transformer for me) is now adapting one of these magnets to the alternating current.

The electric motors heretofore used for fans and drills were supplied with the continuous current only, but some are now being adapted to the alternating current.

In addition to the varied purposes that this little apparatus may be called upon to serve, the current that supplies it may be still further utilized before its entrance. For example, it will light two incandescent lamps, and, at the same time run two fans or drills, when the motors are suitable, and still supply the transformer.

While the volume of the current or ampérage is large, the electro-motive force can be reduced sufficiently for therapeutic uses when the alternating current is advisable.

In short, it is safe, it is inexpensive, it is always ready, it is reliable, it exacts no time or attention, it dispenses its force and volume in many practical ways, it occupies but little room and is not unsightly, it does its work perfectly, and if it once gains an entrance to the consultation room of one who resorts to electricity in many of its varied forms, it will become a fixture.

THERAPEUTICS AND DIPHTHERIA.

Winckler (Bremen).—*New Electric Lamps for Examination.* “Münchener Med. Woch.,” 1893, No. 36.

THE author recommends an electric “Bogenlampe.” *Michael.*

Bayer (Brussels).—*On the Therapeutic Value of Hydro-Carbons, especially of Oxygenated Vaseline (Vasogene).* “Deutsche Med. Woch.,” 1893, No. 37.

THE author recommends the application of this preparation for internal and external use in tubercular affections. The paper has already appeared in this Journal (October, 1893). *Michael.*

Rhodes.—*Notes on the Use of Cocaine for Local Anesthesia.* “North American Practitioner,” July, 1893.

THE following solution is recommended in order to diminish the constitutional effects of cocaine :—

℞ Atropinæ sulph.	gr. $\frac{1}{2}$
Strophanthin	“ 1
Cocain. hydrochlor.	grs. xx.
Acid. carbolic.....	“ v.
Aqua dest. ad.....	5l.

This can be injected for tracheotomy, aspirating the chest, removal of cartilage in anterior deviation of the septum, two to four minims being sufficient.

For nasal cauterizations, rubbing it on the mucous membrane rapidly

for thirty seconds, and then waiting five minutes, when it can be renewed if necessary, is very satisfactory. For laryngeal and pharyngeal sprays, the author prefers a ten per cent. solution of cocaine, as there is less absorption of the drug in the larynx than in the nose. *B. J. Baron.*

Applegate. — *Twenty-eight Cases of Diphtheria with Eleven Deaths, due to an Infected Milk Supply.* “*Med. News,*” Aug. 26, 1893.

THE cases occurred in people buying milk of one distributor. A boy who washed the cans and milked the cows had diphtheria, but was not seriously ill at any time. The people, however, that were infected from this boy were extremely ill, and recovery in all was slow. *B. J. Baron.*

Romberg. — *Anomalies of the Heart Muscle in Typhus Abdominalis, Scarlet Fever, and Diphtheria.* Arbeiten aus der Medicinische Klinik zu Leipzig, 1893.

MICROSCOPICAL examinations prove that the heart affections in these infectious diseases are caused by acute purulent myocarditis. The treatment consists in rest in bed, applications of ice, digitalis, and iron.

Michael.

MOUTH, PHARYNX, &c.

Thomas. — *Some Points in the Operative Treatment of severe Hare-Lip.* “*Birmingham Med. Review,*” Sept., 1893.

THIS paper is worth reading, but an abstract would be valueless. It is well illustrated.

B. J. Baron.

Forbes (Philadelphia). — *Cleft Palate, both Hard and Soft, and Hare Lip.* “*Med. News,*” Sept. 2, 1893.

THIS is an admirable description of the developmental deficiencies that lead to this condition, and of the operative measures necessary for restoring the parts. It is well illustrated, but must be read in its entirety.

B. J. Baron.

French (Brooklyn). — *Lymphoid Growths in the Vault of the Pharynx.* Paper read before the Medical Society of King's County, April 18, 1893. Reprint from “*Brooklyn Med. Journ.*”

THE pathology of this condition is thoroughly discussed, and illustrations of microscopic sections are given. All the various and well known ill effects of mouth-breathing are enumerated, and several copies of photographs of patients, before and after operation, show the great improvement in facial appearance that takes place. Nothing short of complete removal with cutting instruments will give permanent relief and effect a cure. The writer operates under ether, with the forceps, the patient at first reclining, and, when anaesthesia is complete, the chair is slowly brought to the upright position. A self-retaining palate retractor, or a rubber cord passed through the mouth with which to tie up the velum, will some-

times be of much value, but usually it is sufficient to draw forward the palate as required.

Complete removal is insisted on, and the finger-nail used to break up the stumps of the growth, but, except in the case of very young children, it alone is an ineffectual method of operating.

Secondary haemorrhage may occur and the patients should be kept under close observation for twenty-four hours after the operation.

In the discussion that followed—

DELAVAN pleaded for early removal, because it is not certain that the hypertrophied tissue will atrophy at puberty and, even if it does, there is apt to be left behind a diseased structure.

General anaesthesia is preferable to that produced by cocaine.

PROUT referred to aural complications in these cases.

WRIGHT does not interfere unless the growth is giving definite trouble. He referred to the fibrous tissues that atrophy leaves behind it, and which lead to bands of adhesion from the vault of the pharynx to the Eustachian tube, but which do not lead to definite ear symptoms. He believes that the high vault of the palate, the distorted septum, and narrow cheek bones is the cause, and adenoids the result. Also he has seen cases with the "adenoid look" without the adenoids, and *vice versa*. He prefers to operate with cocaine, palate retractor, and the mirror, rather than under an anaesthetic.

B. J. Baron.

Brown (Toronto).—*Organic Stricture of the Oesophagus.* “New York Med. Journ.” Aug. 26, 1893.

THERE is a good summary of the cases that have been recorded in our literature during the last few years, with records of three cases, but nothing new is brought out.

B. J. Baron.

NOSE AND NASO-PHARYNX.

Lichtwitz (Bordeaux).—*Empyema of the Frontal Sinus diagnosed per vias naturales.* “Therap. Monats.,” 1893, No. 9.

DESCRIPTION of a probe with a particular curve, and a case in which it was applied with good result.

Michael.

Oaks (Chicago).—*The Differential Diagnosis and Treatment of Suppuration of the Accessory Cavities of the Nose.* “Med. News,” Sept. 2, 1893.

THE symptoms common to disease of all the accessory cavities are discussed under three heads.

(A) *Suppuration.*—Whilst theoretically the pus should make its appearance in the middle meatus and nasal fossæ, if there be an obstructive lesion involving the anterior end of the inferior turbinate it would go towards the posterior nares, and would simulate disease of the posterior ethmoidal cells and sphenoidal sinus, the so-called Tornwaldt's disease. The fact of pus flowing when the head is inclined forward and

downward is not considered pathognomonic of antral abscess, as suggested by Fränkel, as it occurs if the anterior ethmoidal cells are diseased. Preliminary cleansing of the middle meatus, and making the test in the morning, causes this symptom to be of much importance. Pus from the ethmoidal and frontal sinuses is usually not so abundant as in antral empyema, and the pus is more inspissated and tends to crust formation in the former disease. Posterior rhinoscopy often enables us to see pus in the superior meatus, with maceration of the mucosa covering the middle turbinate in posterior ethmoidal and sphenoidal suppuration, and enables us to diagnose between this and mischief in the pharyngeal tonsil.

(B) *Neuroses*.—Headache is so common a symptom of these troubles that the nose ought always to be examined, even if the patient complains of no nasal affection. In disease of the frontal sinus the neuralgia is supra-orbital; in ethmoidal disease, orbital, deep-seated and diffuse; while in sphenoidal mischief the cephalalgia is very distressing, radiating through the side of the face, and involving all the branches of the trigeminus. Various psychic symptoms are also described.

(C) *Ocular disturbances* are discussed, and Berger is mentioned as stating that when the sphenoidal sinus is affected the peripheral field of vision is invaded before the central.

Mention is made of probing, exploratory puncture, and transillumination, as means of diagnosis. The author places the lamp laterally below the lower wall of the antrum, and not centrally as usually practised.

As regards treatment the following conclusions are practical :—

1. In antral suppuration the opening should be made with chisel and mallet through the canine fossa, according to the method of Küster or that of Robertson, and of sufficient size to permit exploration with the little finger and the small incandescent lamps; if necessary this is to be followed by curettage and the dry method of Krause-Friedländer.
2. In sphenoidal suppuration the method of Schäffer is to be commended, viz., enlargement of the normal openings by breaking through the anterior wall of the sinus with the curette, and by thorough curettage.
3. In frontal suppuration the choice of operative procedure depends upon the indications: if there is bulging of the inner and upper wall of the orbit that site should be selected for the artificial opening. The point usually selected for the latent form is immediately below the superciliary ridge, and near the bridge of the nose; the opening should be of sufficient size to give free access to the sinus, for the purpose of exploration, thorough drainage, and re-establishing communication with the nasal cavity.
4. In suppuration of the ethmoidal cells, guided by the indications of the probe as to the presence of caries and pus, we should proceed to open up all suppurative foci by means of the snare, hot or cold, the nasal cutting forceps, the curette, trephine, gouge, or the galvano-cautery knife.
5. A thorough knowledge of the topography of the ethmoid, its anatomic relation to the cranial and orbital cavities, together with a high degree of manipulative dexterity, will enable one to proceed with the assurance and rapidity that are so desirable in view of the free and annoying haemorrhage that is usual in intra-nasal surgery.

B. J. Baron.

Major, George W.—*An improved Method of Draining the Antrum of Highmore.* “New York Med. Journ,” Aug. 19, 1893.

WHEN a suitable space is found in the jaw from which a tooth has been previously removed, a ten per cent. solution of cocaine is applied and the bone drilled. The author uses two sizes of drills, one five thirty-seconds of an inch and the other three-sixteenths of an inch in diameter. These are worked by an electro-motor. After having withdrawn the drill and cleansed the cavity, a piece of soft pine wood, previously prepared, is inserted into the opening. An impression of the upper jaw in plaster of Paris is now taken. When ready for removal it is withdrawn, and with it the wooden plug firmly held in the cast. A model of the upper jaw in metal alloy is now made. The tube for insertion into the antrum is made of pure gold. A sheet of gold beaten out on the metal model will be an exact fit for the gum in the neighbourhood of the opening. The gold tube passed through the opening in the model is soldered to the plate, and the drainage tube proper is complete. For washing out the antrum the author uses a watery solution of boric acid, and for dry dressing insufflations of iodol or of iodol and boric acid.

W. Milligan.

Hamburger, S.—*Deviations of the Nasal Septum, and their Operative Treatment.* Inaugural Dissertation. Breslau, 1893.

RESEARCHES upon sixty children from one day to two years of age have shown that in no case was deviation at this early age observed; the author, therefore, concludes that this anomaly is not congenital, but acquired.

Michael.

Schmidt, Moritz (Frankfurt-a-M.).—*Treatment of Deviations and Tumours of the Nasal Septum by Electrolysis.* Versammlung der XII. Med. Congress in Wiesbaden.

RECOMMENDATION of this treatment.

Michael.

Dunn.—*A Case of Unilateral Membranous Rhinitis.* “New York Med. Journ,” Aug. 26, 1893.

THE case is that of a child, five years of age, in whom there had been “amygdalitis with some white patches in its throat” some time before the nasal trouble. The membrane in the nose was firmly attached to the mucous surface, and, on detaching it, left the latter raw and bleeding. A warm solution of bicarbonate of soda was found useful as a spray to detach the false membrane. The unilateral distribution of the mischief is thought to be due to the fact that the mother of the child used an injection of hot water into that side which was partially occluded posteriorly by a deviation of the septum.

B. J. Baron.

Bernstein.—*Hypertrophic Rhinitis producing Ocular Asthenopia.* “Med. News,” July 22, 1893.

THREE cases are published in which hypertrophy of middle and inferior turbinates with coincidental pharyngeal troubles was the cause of asthenopia, which was only cured when the nose was carefully treated.

B. J. Baron.

Cox—*The Treatment of Atrophic Rhinitis.* “Brooklyn Med. Journ.,” Sept., 1893.

THIS is local and general. The local consists in cleansing by sprays of Dobell's or Seiler's solution, deodorizing by means of aristol used with an auto-insufflator two or three times a day, or a spray of one in ten thousand of bichloride of mercury. Nitrate of silver gr. x. ad. $\frac{3}{4}$ l. is a useful stimulating spray. Gottstein's plugs are not highly commended, and various other agents, as calendula powder, trichloracetic acid, a snuff of iodol, tannic and boracic acids, saccharine in solution as a douche, the galvanic current applied to the nose, as suggested by Delavan, electro-cautery, and massage, are all mentioned.

B. J. Baron.

Rice, Clarence C.—*The use of Ozone in Atrophic Catarrh.* “New York Med. Journ.,” Aug. 19, 1893.

IN several cases of atrophic nasal catarrh the treatment resorted to consisted in inhalations of ozone. The patients were instructed to breathe the gas into the nose and lungs, and exhale it through the mouth. The immediate effect of the gas was to produce a mild smarting of the nasal mucous membrane for several hours. The secretion of mucus was increased for from eight to ten hours. The congestion of the nasal mucous membrane was also increased. For the first twenty-four hours after the patient had used the ozone symptoms of cold in the head were present, but afterwards the nose felt unusually clear and the mucous membrane more comfortable than before the application. In mild cases considerable and rapid improvement followed. In more severe cases benefit was not obtained so quickly.

W. Milligan.

Hopman (Köln).—*On the Measure of the Diameter of the Nasal Septum and Naso-Pharynx: a Contribution to the Etiology of Ozæna.* “Archiv für Laryngologie,” Band 1, Heft 1.

NUMEROUS researches have proved to the author that the diameter of the nose is much less in ozæna than in normal conditions, and he concludes, therefore, that this disease is produced by congenital conditions.

Michael.

Heymann, Paul (Berlin).—*Application of Galvano-Cautery to the Treatment of Diseases of the Nose and Naso-Pharynx.* “Berliner Klinik,” 1893, Heft 7.

OPINIONS as to the application of the galvano-cautery have been much modified during the last few years. For removal of nasal polypi the cold wire, and for adenoid vegetations other instruments must be preferred; for nasal bleeding the caustic medicaments produce a better effect. The galvano-cautery should be applied for the treatment of hypertrophies of mucous membranes, for destruction of the remaining traces of polypi, for treatment of pharyngitis granulosa, fibromata of the naso-pharynx, and tonsillotomy in broad tonsils and in haemophilic patients. *Michael.*

Schmidt, Moritz (Frankfurt-a-M.).—*Lateral Diverticula of the Naso-Pharynx.* “Archiv für Laryngologie,” Band 1, Heft 1.

THE author has observed this anomaly in three cases. It is, however, without any practical value.

Michael.

Sympson.—*Adenoid Vegetations of the Naso-Pharynx.* “Arch. of Pediatrics,” Sept., 1893.

NOTHING new.

B. J. Baron.

Hardie.—*The Treatment of Adenoid Vegetations.* “The North American Practitioner,” May, 1893.

THIS is discussed under the following heads :—

1. *Cauterization.*—Which is not to be commended.

2. *The Snare.*—Confined to adults ; the hollow stiff ring of Hartmann being introduced through the mouth, or a straight snare through the nose. The galvano-cautery snare has no advantage over the cold one. Electrolysis is protracted, and therefore unsatisfactory.

3. *The Curette.*—Gottstein’s instrument is to be preferred. Cocaine ought to be applied in adults.

4. *The Forceps.*—Woakes’ modification of Löwenberg’s instrument is very useful.

5. *The Finger-Nail.*—This ought not to be done with any artificial nail on the finger, because we ought to be able to feel what we are doing. The patient ought to be anaesthetized, and good work can then be accomplished in this method of operating.

As regards anaesthesia, the position in which the patient’s head hangs over the edge of the table is thought to be safest.

Cocaine in children ought to be used as sparingly as possible.

An alkaline spray is advisable after the operation. *B. J. Baron.*

LARYNX.

Neumann (Buda-Pesth).—*Remarks on the Researches upon Laryngeal Paryses of Onodi.* “Berliner Klin. Woch.,” 1893, No. 37.

POLEMICAL article.

Michael.

Finlayson.—*Recurrent Laryngeal Nerve Paralyzed, in a Child, from its Impairment in Scrofulous Glands.* “Arch. of Pediatrics,” Sept., 1893.

THIS occurred in a child aged four-and-a-half years, and the left vocal cord was paralyzed as regards abduction, being fixed near the middle line. There was no tubercular disease in the larynx, but consolidation of the left lung, and the patient was very rickety. *Post-mortem* examination revealed caseating bronchial glands involving the left recurrent nerve.

B. J. Baron.

Porcher.—*A Case of Complete Glottic Spasm in an Adult followed by unconsciousness and prolonged drowsiness.* “New York Med. Journ.,” Aug. 26, 1893.

THE patient was a maiden lady, fifty-two years of age, who had both tonsils cauterized, because it was assumed that their enlargement was the cause of attacks of cough and suffocation occurring at night. The day

after the operation she attempted to drink some warm coffee and was immediately seized with giddiness, and became unconscious. Persistent drowsiness came on and lasted for weeks, and this, together with marked torpidity of the bowels, was looked upon as an indication of central nerve mischief. Strychnine was pushed, and after some time she got quite well.

The paroxysm of vertigo is not thought by the observer to be analogous to that observed after holding the breath for some time, or coughing and sneezing. It is, again, not an epilepsy, as there was never any spasm or jerking of any description.

B. J. Baron.

Hajek (Wien).—*Tuberculous Laryngeal Tumours.* “Internat. Klin. Rundschau,” 1893, Nos. 37 and 38.

1. A tubercular patient, fifty-two years old, presented a pendulous polypus on the left vocal cord. It was extirpated. The histological examination showed it to consist of tubercular tissue and bacilli. Treatment with lactic acid. Cure.

2. A patient, fifty-four years old, with aphonia and dyspnoea. The laryngeal lumen was nearly closed by a tumour of both ventricular bands covering the larynx like a diaphragm. There was tuberculosis of the lungs. Extirpation of the tumour (tubercular tissue and bacilli) was followed by improvement.

3. A patient, forty-five years old, with cough and difficulty of swallowing, presented the left ary-epiglottic fold transformed into a tumour. Phthisis of the lungs existed. Extirpation of the tumour (tubercular tissue and bacilli) was performed.

4. A patient, fifty-three years old, with difficulty in swallowing, had a large tumour on the anterior part of the larynx. It was extirpated (tubercular tissue and bacilli).

5. A patient, fifty-four years old, with tubercular lungs, had two polypi on the right vocal cord. The general health was so bad that operation could not be attempted, but the author believed that they were tubercular tumours.

Michael.

Brück (Berlin).—*Sarcoma of the Larynx.* “Berliner Klin. Woch., 1893,” No. 37.

A PATIENT, fifty-seven years old, had suffered for a year from hoarseness, cough, and dyspnoea. Palpation showed that the right half of the thyroid cartilage and its neighbouring parts were occupied by a tumour of the size of an egg. The laryngoscope showed a tumour to be seated on the enlarged ventricular band. A portion of the tumour was extirpated, and the microscopical examination proved it to be a giant cell sarcoma. Extirpation of the right half of the larynx was performed. Death resulted.

Michael.

Schild (Magdeburg).—*Case of Aspirated Foreign Body in the Lung.* “Centralbl. für Klin. Med.,” 1893, No. 34.

A PATIENT, twenty years old, inspired a piece of an acorn. An attack of

suffocation resulted, followed by aphonia. The next day the patient became feverish over the left lung: no respiratory murmur could be heard. The patient then became dyspnæic. A puncture over the left lung revealed purulent exudation. Resection of a rib was performed, and irrigation of the pleura and drainage effected. Two months later the foreign body was coughed out. Cure eventually followed after a long convalescence.

Michael.

NECK.

Sulzer (Munsterlingen).—*Report on Two Hundred Operations for Goitre, with regard to the final results.* “Deutsche Zeitschrift für Chirurgie,” Band 36, Heft 3 and 4.

THIS well-written report is more of surgical than of laryngological interest.

Michael.

Kronlein (Zurich).—*Clinical Researches on Goitre—Operations for and Death from Goitre.* “Beiträge zur Chirurgie,” Band 9.

SEE the report of the meeting of the Aerzte Gesellschaft in Zurich.

Michael.

Marcus (Pyrmont).—*Treatment of Basedow's Disease.* “Wiener Med. Woch.,” 1893, Nos. 20, 21, and 22.

REPORT on the different methods of treatment. The author concludes that neither treatment of the nose nor surgical treatment, consisting of resection of the thyroid gland, is to be recommended, but that the disease must be treated by internal medication.

Michael.

Freiberg (Ohio).—*The Surgical Treatment of Exophthalmic Goitre.* “Med. News,” Aug. 26, 1893.

THIS paper deals with the theories that are current respecting this disease, and tabulates forty-one cases reported by various observers with the results of the operations.

B. J. Baron.

Speyer (Berlin).—*Case of Struma Maligna.* “Deutsche Med. Woch.,” 1893, No. 3.

DEMONSTRATION of a specimen of malignant struma. The tumour was operated upon, but some weeks later there was recurrence and death from cachexia.

Michael.

Eiselsberg (Utrecht).—*Metastases in the Bones following upon Cancer of the Thyroid Gland.* “Langenbech's Archiv,” Band 26, Heft 2.

1. A patient, thirty-eight years old, had a goitre for eighteen years. Four years ago a tumour arose upon the surface of the head. It attained the size of a fist. Extirpation was followed by cure. The examination

of the tumour showed it to be atypical adenoma of the strumous gland; it must therefore be regarded as a metastasis of an adenomoid degenerated struma. The goitre was too large for extirpation.

2. A patient, thirty-two years old, had a goitre since his youth. For some years he had a tumour upon the manubrium sterni, which attained the size of a fist. Extirpation was followed by death. The microscopic examination showed the goitre to be an adenoma, and the sternal tumour to be a metastasis.

3. Tumour of the sphenoid bone, showing the nature of a metastasis of an adeno-carcinoma of the thyroid gland, which consisted of adenomoid tumours.

4. Adeno-carcinoma of the thyroid gland, with metastases of colloid tissue in the ribs, the vertebrae, and the lungs.

5. Colossal tumour of the humerus in a patient thirty-nine years old, showing the nature of a metastasis of a colloid carcinoma of the thyroid gland.

6. Malignant goitre, with metastases in the bone of the lower jaw, the glands of the neck, and the mediastinum and lungs.

7. Adeno-carcinoma of the thyroid gland, with metastases in the frontal and occipital bone in the lungs and the liver.

8. Adeno-carcinoma of the thyroid gland, with metastases in the bones of the head, the ribs, and the humerus.

The author concludes that as the primary tumour is often small in such cases, metastases, if they cause symptoms, should be operated upon, contrary to the surgical rule that secondary tumours should never be treated so.

Michael.

Trumpp (Harsheim-Pfalz).—*On a Case of Angina Ludovici.* “Münchener Med. Woch.” 1893, No. 38.

A SEVERE case of swelling and inflammation of the cervical tissue, in which incision was followed by cure.

Michael.

EAR.

Connors.—*A Foreign Body in the Ear for Thirty-nine Years.* “Med. News,” Aug. 26, 1893.

THIS consisted of a white bean, and after removal hearing was almost completely restored.

B. J. Baron.

Toepeltz, Max.—*Clinical Contribution to the Study of Aural Syphilis.* “New York Med. Journ.” Oct. 7, 1893.

AURAL syphilis may appear during the secondary and tertiary stages, and a few rare cases of primary induration of the auricle have been recorded. Secondary affections are usually transmitted from the pharynx or naso-pharynx, or may appear in the external meatus as condylomata

or ulcers. Tertiary affections are characterized by chronic inflammation of the periosteum of the labyrinth, with subsequent hyperostosis or exostosis of the petrous bone, or of the cavities of the labyrinth, leading to stenosis, or even occlusion of the latter.

The following case is remarkable from the fact that the labyrinth was affected primarily in the course of a freshly-acquired case of syphilis, and that the aural affection began simultaneously with the appearance of roseola.

The patient, a medical man, aged forty-one, consulted the author, complaining of deafness in the left ear. Moderate congestion of Shrapnell's membrane was found. Politzerization used for diagnostic purposes did not improve the hearing. On the fourth day the right ear became affected also. Examination with the tuning-fork at this stage pointed to implication of the internal ear. A chancre (contracted during gynaecological examinations) was found upon the middle finger of the patient's left hand. At the same time pharyngeal mucous patches and a commencing roseola were found. Energetic antisyphilitic treatment was at once adopted, and injections of pilocarpin were also made.

The special features of the case were:—(1) The affection of the labyrinth occurred after the appearance of the pharyngeal mucous patches, and simultaneously with the appearance of roseola. (2) The aural lesion took place during the secondary stage without attacking the middle ear. (3) The diagnosis of syphilis was made from the ear.

W. Milligan.

Politzer, Professor Adam.—*A Clinical Lecture on the Treatment of Chronic Suppuration of the Middle Ear.* Reported by ST. CLAIR THOMSON, M.D. “Lancet,” Aug. 19, 1893.

IN the treatment of chronic suppurative middle-ear disease the remedies to be applied must depend upon the quality and quantity of the secretion, the situation and size of the perforation in the membrane, the local changes consequent upon the suppuration, and the previous state of health of the general organism. Thorough removal of secretion from the tympanum is all-important. It is advisable in commencing the treatment to examine the discharge microscopically for the different micro-organisms. The streptococcus, when present, is the most unfavourable from a prognostic point of view. For thorough removal of secretion, the middle ear should be inflated by the author's process, or the Eustachian catheter should be passed, and, if necessary, the contents of the middle ear may be aspirated with Siegle's instrument. The lotions the author usually employs for syringing are solutions of lysol (ten to fifteen drops to a quarter of a litre of boiled water), two per cent. carbolic acid, one to two per cent. resorcin, or one per cent. solutions of salol. Regarding the use of corrosive sublimate solutions (one to two thousand), the following points should be borne in mind: (1) never to use it in the case of children, (2) or when the Eustachian tube is very patent, as it might then run into the pharynx and be swallowed in small, but frequently repeated doses; (3) discontinue its use at the end of a week or sooner, if all fœtor has disappeared. The author constantly employs

insufflations of boracic acid and has never seen any bad effects due to caking of the acid, but advises that only a fine coating should be insufflated. In employing powdered iodoform as an insufflation, the disagreeable smell may be disguised by the addition of Tonga bean. Small bougies made of iodoform, gum arabic, glycerine, and tincture of Tonga, and about the thickness of a Eustachian catheter, have been found useful. A small piece (about a quarter of an inch) is broken off, introduced as far as the membrane with forceps, and kept *in situ* by means of a cotton plug. As melting takes place gradually, a fresh antiseptic solution is formed.

In those patients where arrest of suppuration has taken place without, however, cicatrization of the membrane, there is a tendency for the epithelial lining of the meatus to grow inwards, and tend to the formation of cholesteatomatous masses. The best treatment for the prevention of such masses is the use of pure alcoholic instillations from time to time. Where such masses have already formed, they should be softened by using solutions of glycerine and bicarbonate of soda, and then washed out. Cases which do not yield to this treatment require the employment of astringents. Nitrate of silver is the drug principally used for this purpose. A ten per cent. solution should be warmed, and poured into the ear, and allowed to remain from ten to fifteen minutes *in situ*. The author does not recommend neutralizing this solution with solutions of common salt. The resulting clots of chloride of silver form insoluble deposits, and act as foreign bodies within the tympanic cavity. In cases of suppuration, through Shrapnell's membrane, from suppuration in the external attic, or cavity of Prussak, finely-pointed canulae (*e.g.*, those of Hartmann) should be used. If the perforation in the membrane is very small, and obviously insufficient to maintain free drainage, it should be enlarged. The ossicles should be removed only when they are carious, or when the membrane is destroyed and they are of no further use. Regarding the exact method of action of many of the remedies employed in the treatment of chronic suppurative middle-ear disease, no very definite explanation can be given. Many remedies, especially alcohol and powders, withdraw water from diseased tissues. Others have a strong caustic action, and set up strong reaction and speedy alteration in the circulation and nourishment of the mucous membrane. Also the chemical and mechanical irritation, caused by certain agents, sets up a disintegration and re-absorption of round-celled infiltration, and finally the antiseptic treatment prevents putridity and decomposition, and exercises a good influence (through its germicidal properties) on the progress of the suppurative process.

W. Milligan.

Burnett, C. H.—*The Surgical Treatment of Chronic Tympanic Vertigo, often miscalled Menière's Disease.* “Med. News,” Sept. 30, 1893.

CHRONIC tympanic vertigo, the most frequent form of aural vertigo, is one of the results of chronic catarrhal otitis media. This form of vertigo is paroxysmal in character and attended with tinnitus and deafness in the affected ear. It is caused by the inward pressure exerted upon the labyrinthine fluid by the retracted and ankylosed ossicles. The irrita-

tion in the labyrinth being communicated to the motor filaments of the auditory nerve is reflected by them to the cerebellum, and disturbed equilibration is the result. The author formerly excised the membrana tympani and the malleus in such cases, but having found that more or less inflammatory reaction followed he determined to remove the incus alone, or incus and stapes, the membrana tympani and malleus being allowed to remain in position in the hope that less inflammatory reaction would ensue. The experience of ten such operations leads him to the following conclusions : (1) That removal of the retractive force of the sound-conductors upon the stapes is the efficient means of relieving the tinnitus, deafness and vertigo due to the lesions of chronic catarrh of the middle ear; (2) that the removal of the retractive force upon the stapes can be accomplished efficiently and simply by removal of the incus alone, and even by resection of its long process; (3) That the improvement in these cases is due to the liberation of the stapes from the retractive power of the tensor tympani muscle, and the consequent unimpeded action of the stapedius muscle, which, relieved of the antagonism of the tensor tympani, tends all the more to draw the stapes from the oval window, thus aiding in the isolation and improved mobility of the bonelet, as well as in removing its undue pressure inward upon the labyrinthine fluid; (4) it would seem wiser, therefore, in most cases of chronic catarrhal deafness, tinnitus and vertigo, not to sever the stapedius tendon and remove the stapes, but to be content with removal of the incus only; (5) the progressive improvement in hearing, noted in many cases, must be due to the passive motion exerted upon the ankylosed stapes by sound waves, which are enabled to reach this bonelet more freely after removal of the incus.

W. Milligan.

Coues, W. P.—Mastoid Measurements. “Boston Med. and Surg. Journ.,”
Sept. 21, 1893.

THE author examined 400 crania in order to determine (1) the relative frequency of asymmetric mastoid processes; (2) whether the mastoid process being small, or the digastric fossa deep, made any difference in the depth and direction of the lateral sinus.

Out of the 400 crania examined, 13, or 3·25 per cent., had asymmetric mastoid processes. One hundred and sixty-four had either a small mastoid or a deep digastric fossa. Of these 164, 136, or about 83·3 per cent., had a very deep lateral sinus coming up towards the mastoid antrum. Therefore, where the digastric fossa is deep, or where there is a small mastoid process, the lateral sinus is almost invariably deep, coming up towards the mastoid antrum and encroaching upon the mastoid cells, so that in operating upon the process, if it is small, or the digastric fossa deep, great care must be taken lest the lateral sinus be wounded.

W. Milligan.

SOCIETY MEETINGS.

THE AMERICAN LARYNGOLOGICAL ASSOCIATION.

Fifteenth Annual Congress, held in New York City, May 22, 23, and 24, 1893.

First Day, May 22.

Dr. MORRIS J. ASCH delivered the President's address, reviewing the work of the Association since its formation in 1879, and referring to the vast strides that have of late years been made in laryngology.

Dr. W. PEYRE PORCHER (Charleston).—*A Case of Complete Glottic Spasm in an Adult, followed by Unconsciousness and Prolonged Drowsiness.*

The patient was an unmarried female, fifty-two years old, at the menopause, who complained of difficult respiration at night, with frequent, terrifying nightmares, which she attributed to an attack of influenza several months before. She would be awakened by a fit of coughing, accompanied by a fit of choking or gagging. The tonsils were found to be small, and were thoroughly cauterized with the galvano-caustic knife. On the following morning, on attempting to drink some coffee, which was not hot, the woman was seized with giddiness and became unconscious. The attack lasted but a short time. Persistent drowsiness, lasting several weeks, followed the attack, indicating marked implication of the brain-centres. The patient made a good recovery, and there has been no recurrence. On account of the known tendency of hot coffee to enter the larynx, and in the absence of any other exciting cause, the case was regarded as one of laryngeal vertigo or complete glottic spasm.

Dr. JONATHAN WRIGHT (Brooklyn) narrated the history of a case of spasm of the glottis, in which the patient was brought into the hospital unconscious, and tracheotomy was performed in order to save her life.

Dr. J. W. GLEITSMAN (New York) referred to a case of laryngeal vertigo produced by fits of coughing in a patient with enlargement of the lingual tonsil.

Dr. W. E. CASSELBERRY (Chicago) referred to the not uncommon cases of reflex spasm of the glottis in children, due to irritation of the faecal tonsils, the naso-pharynx or the nasal mucous membrane, and associated with acute laryngitis. In another class of cases the spasm of the glottis is associated with epilepsy, or *petit mal*, and then again there are cases of true laryngeal vertigo. In treating these cases it is most important to restore the mucous membrane of the upper air-passages to a thoroughly healthy condition.

Dr. S. W. LANGMAID (Boston) said that laryngeal vertigo is often due to digestive disturbance. Gouty individuals are particularly subject to it. The diathesis of such patients should be always carefully looked into.

Dr. J. O. ROE (Rochester) said that some cases of laryngeal vertigo are due to direct irritation of the larynx. In one case that has been described it was caused by extreme sensitiveness of the arytenoids.

Dr. D. BRYSON DELAVAN (New York).—*The Withholding of Statistics in Operations for the Relief of Cancer of the Throat.*

Painstaking and accurate accounts should be published of the history of every malignant growth removed from the upper air-passages, whether the operation be successful or otherwise, so that more reliable data can be obtained.

Dr. J. SOLIS-COHEN (Philadelphia) said that there are various reasons that prevent the publication of accurate statistics of operations. Many operations are performed in the hospital, and the surgeon does not take time to record them. Then, again, a case may terminate fatally on account of neglect in the after-treatment : this happens not infrequently, and such cases impair the value of statistics. As a man gets older, he loses confidence in statistics, to a large extent, and depends more on his own experience and the results of his own work. He becomes more careful in the selection of his cases, and seems to know or feel that in certain cases the results will or will not prove successful.

Dr. W. E. CASSELBERRY (Chicago).—*Arthritis Deformans of the Larynx.*

He detailed the history of a woman, fifty-eight years old, who suffered from laryngeal dyspnoea, marked inspiratory stridor, and some laryngitis. The vocal bands could not be abducted on account of an ankylosis of the arytenoid eminences. The patient had a general arthritis deformans, affecting the joints of the hands and feet, as well as the larger joints throughout the body. The attacks of laryngeal dyspnoea were self-limited, and corresponded with the exacerbations of the constitutional disease. During the course of the attack local treatment was employed to keep the larynx free from mucus, otherwise the operation of tracheotomy could not have been avoided. Dr. Casselberry expressed himself in accord with the theory that arthritis deformans is a disease quite distinct from rheumatism, on the one hand, and gout, on the other hand, and that its laryngeal complications are entitled to a separate discussion. In the case reported, the patient had been treated for a time on the supposition that the disease might be rheumatism or gout, but without any good effect.

Dr. R. P. LINCOLN (New York).—*Recurrence at a New Site of a Laryngeal Growth (Papilloma) in a Case already reported under the title "Evulsion of a Laryngeal Tumour which Returned Twenty-two Years after its Removal by Laryngotomy."*

The case was that of a woman who, in 1862, had a papilloma removed from her larynx by means of the forceps. The growth recurred, and in 1867 was again thoroughly removed, this time by laryngotomy. There was then no recurrence for twenty-two years. In 1889 a tumour was found springing from the posterior third of the right vocal band. This was removed and its site thoroughly cauterized with the electro-cautery. The growth

proved to be an ordinary papilloma. The patient remained free from hoarseness until within six months, when a new growth was discovered springing from the anterior portion of the left vocal band. This was removed and also proved to be a simple papilloma.

Dr. J. SOLIS-COHEN said that while the recurrence of papillomatous growths is rare, he has seen some remarkable instances of it. In one patient under his care, a school-teacher, who had a number of small sessile papillomata, a new growth could actually be seen springing from the left vocal band while he was removing the older ones. In the majority of cases in which recurrence takes place this is probably due to incomplete removal of the original growth. Small portions of the growth are easily overlooked. As regards the methods of operation, a skilful laryngologist is just as competent to remove the growth thoroughly by the intra-laryngeal route as the surgeon is by the external method.

Dr. F. I. KNIGHT said that when the growth is removed with the forceps or loop, more or less of it is necessarily left behind in the majority of cases, and it would seem strange that recurrence is not more frequent. When the growths are multiple, recurrence may be expected.

Dr. DELAVAN referred to the difficulty of diagnosis in cases of apparent papilloma. The superficial appearance of the growth may be deceptive. The tendency to repeated recurrence should always suggest the possibility that the lesion is a more serious one than a simple papilloma.

Dr. GEORGE M. LEFFERTS (New York).—*Intubation in the Adult.*

He pointed out that intubation in the adult has of recent years been employed for intra-laryngeal conditions that were unheard of in connection with the operation in the past, and their number is rapidly increasing. The subject is still in its infancy, and ample and reliable statistics are yet wanting upon which to formulate definite propositions. The objects for which the operation is undertaken are : (1) To overcome the most urgent acute symptoms of obstructed laryngeal respiration ; (2) to restore, as far as may be possible, the interior of the stenotic larynx to its normal calibre ; (3) to obviate the necessity of resorting to either laryngotomy or tracheotomy ; and, finally, to facilitate the withdrawal of the tracheal canula in certain cases in which this is attended with difficulty. Among the suitable or probably suitable conditions of the adult larynx that may demand intubation are the following : Acute or chronic syphilitic affections of the larynx ; dyspnoea dependent upon acute bilateral abductor paralysis of constitutional origin ; dyspnoea dependent upon abductive immobility of the vocal bands, due to ankylosis of the arytenoid articulations ; fracture and displacement of the laryngeal cartilages from direct injury ; acute dyspnoea due to oedematous infiltration or to the development of haematomata, usually of the aryteno-epiglottic fold ; chronic stenosis ; compression of the larynx or upper trachea by external causes. Intubation has been successfully performed for the relief of dyspnoea dependent upon chronic oedema in laryngeal tuberculosis ; in acute inflammatory conditions of the adult larynx and their results ; in acute perichondritis, especially of the cricoid : in spasm of the glottis ; in

chronic laryngitis with hypertrophic changes ; in atresia of the larynx : to aid in the removal of foreign bodies or laryngeal neoplasms ; in cicatricial conditions, etc.

Dr. SIMPSON said that in adults the tube is best introduced with the aid of the mirror. The parts can first be sprayed with cocaine.

Second Day, May 23.

Dr. J. C. MULHALL (St. Louis).—*Rhinitis Ædematosa; Laryngitis Hiemalis.*

The condition described consists in a serous infiltration of the connective tissue overlying the inferior or middle turbinated bone. It is intermittent in character, and may be general or local. In one case the condition resembled a cyst, causing intense pain, lachrymation, and a flow of thin serum. The swelling obstructs the nasal respiration ; it may be migratory in character ; it may be acute or chronic. When the swelling is punctured with the bistoury serum slowly exudes. Cocaine has little or no influence in causing the mass to shrink. The condition may occur in connection with bronchial asthma, but in the majority of cases asthma is absent. The affection is certainly a neurosis, yet it stands apart from those morbid conditions that are caused by an extrinsic excitant, as is rose-cold, etc. In most cases there is a history of hepatic derangement, and the disease is probably of biliary origin. As regards treatment, spraying, etc., is contra-indicated. Scarification may be of benefit. In chronic cases, existing deformities of the nose should be corrected. The principal efforts should be directed towards improving the condition of the alimentary canal.

Laryngitis hiemalis—winter laryngitis—is a variety of subacute laryngitis in which the secretions are rapidly changed into adhesive crusts. Cold weather is the important factor in its production. There is complete aphonia. The crusts often cling to the surfaces of the true bands and the arytenoids. The evidences of inflammation in the larynx are slight. The condition differs from laryngitis sicca. Improvement rapidly follows removal of the crusts and the use of a spray containing vaseline and eucalyptol.

Dr. SAMUEL JOHNSTON (Baltimore).—*A Case of Nasal polypus projecting into the Naso-Pharynx, with Specimens.*

The patient was a man, sixty years old, who gave a history of nasal obstruction, difficulty in swallowing, and impaired voice. A non-vascular tumour was observed to protrude between the border of the soft palate and the post-pharyngeal wall. This was removed with the snare, and was found to be about the size of a pullet's egg, with a smaller one adjoining, and had its attachment by a narrow pedicle to the inferior turbinated bone. One year later the symptoms reappeared, and a mucous polypus was found hanging freely over the velum, and almost touching the base of the tongue. This tumour measured two inches in length and three-quarters of an inch at its thickest part.

Dr. J. SOLIS COHEN (Philadelphia) read a note on *Buccal Voice*, illustrated by presentation of a patient who phonates without a larynx and without the use of his lungs.

The patient was a man whose larynx had been removed fourteen months previously for epithelioma. In order to prevent the occurrence of septic pneumonia, the trachea was stitched to the skin by several silk sutures. There has since been no communication between the trachea and the mouth. Some months after the operation the man was able to make a clucking sound. He was encouraged in doing this, and has made wonderful improvement. He is now able to speak; his voice is well modulated and can be heard for a considerable distance. After the operation a slight fistula remained in the track of the wound, and in order to close this the skin was inverted and stitched together. The beard on these inverted flaps of skin has continued growing, giving a very curious appearance to the inner surface of the wound. The man wears a tracheotomy-canula, which he removes during sleep. He prefers to wear it during the day, as it gives him some support and allows him to talk better. After the operation the man was nourished per rectum. Eighteen years ago a papilloma was removed from his larynx. Dr. Cohen expressed the opinion that the man was probably aided in speaking by the constrictor muscles of the pharynx.

Dr. JOHN W. FARLOW (Boston).—*Two Cases of Tuberculosis of the Nose.*

One was that of a woman, aged twenty-three years, with tuberculous ulceration of the lower and anterior part of the left septum. Exploration of the chest was negative. Examination of the crusts from the nose failed to show any tubercle-bacilli. There was no history of syphilis. The condition of the nose was typical of tuberculosis, and the ulcers healed after thorough curettage and the application of the cautery and lactic acid. The second case was in a woman, seventy-one years old, who had tuberculous growths projecting from the anterior part of the right septum. There were no pulmonary symptoms. The growths were removed from the nose, and were pronounced by two pathologists to be undoubtedly tuberculous.

Dr. C. C. RICE (New York).—*The Use of Ozone in Atrophic Catarrh.*

He related that the results obtained during the past two months from the use of ozone in the treatment of catarrhal diseases have been satisfactory enough to warrant calling attention to the use of this remedy in atrophic catarrh. The gas possesses powerful oxidizing, germicidal, and bacteriological properties. Applied to the nose it causes a mild smarting of the nasal mucous membrane, lasting for several hours. The secretion of mucus is markedly increased. The milder cases of atrophic catarrh are quickly benefited by the treatment, and remain improved for several days, but most of them relapse somewhat. In the more severe cases the benefit is not obtained so quickly. Whether permanent moistening of the mucous membrane and decrease of secretions can be obtained by the use of ozone can be determined only after a longer trial.

Dr. JONATHAN WRIGHT (Brooklyn).—*Remarks on the Structure of Ædematous Nasal Poly*p*i.*

He gave the results of a long series of histological experiments, the material for which was obtained from about one hundred and fifty individuals. A few of these were normal cases ; the others were suffering from various pathological conditions of the upper air-passages.

Dr. J. C. MULHALL (St. Louis) took exception to the statement that atrophic rhinitis is commonly the result of a preceding hypertrophic rhinitis. While this is the view generally held, he has long been of the opinion that, in the vast majority of cases, atrophic rhinitis is a disease commencing in childhood, and often the result of an acute inflammatory process.

Dr. JOHN O. ROE (Rochester, N.Y.).—*Deviations of the Nasal Septum and their Correction.*

He referred to the great frequency of this form of nasal obstruction ; according to different authorities, it has been found in from 37 to 96 per cent. of all cases that have come under their observation, and in two-thirds of these the deviations were confined to the cartilaginous and the anterior portion of the osseous part of the septum. Such deviations are mainly due (1) to traumatism, and (2) to defective development. The treatment may be either palliative or radical. The former includes the adoption of proper measures to remove the exciting cause, such as turbinate hypertrophy, osseous growth of the turbinated bones, adenoid growth, and such other conditions in children as may cause nasal obstruction and interference with the proper development of the nose. Radical treatment may be divided into non-surgical and surgical. The former consists in the employment of pressure upon the convex side of the deflected septum. The latter consists in correcting the deformity by the use of the forceps after all bony spurs and ridges have been removed by the knife, gouge, etc. ; by the use of the galvano-cautery, chromic acid, electrolysis, or by incision. Dr. Roe exhibited a number of forceps he has devised for the purpose of fracturing and straightening the septum. After this is accomplished the septum is held in place by a suitable dressing. The nasal cavity should first be cleansed with a 1 to 3000 mercuric-chloride solution. The dressing should be thoroughly aseptic, and should be left undisturbed for four or five days.

Dr. T. A. DE BLOIS (Boston).—*The Cautery of Uvulotomy.*

He recommends the galvano-cautery in preference to the knife or scissors, in operations on the uvula. The parts are first thoroughly sprayed with cocaine ; the platinum loop is then passed around the appendage, and as soon as the cautery is felt on the posterior surface of the uvula it is drawn tight by the palatine muscles, and by pulling in an opposite direction with a pair of forceps, the cut can be nicely bevelled ; when the wound heals it leaves a well "tapered" stump. There is no haemorrhage, and the after pain is not so severe as when the uvula is clipped off with the knife or scissors.

Dr. CLINTON WAGNER (New York).—*Salivary Calculi, with Reports of Cases.*

He stated that salivary calculi are formed by the deposits of earthy salts (chiefly calcium phosphate) from the saliva in the excretory ducts leading from the gland, or in the body of the gland itself. The cause of the deposit is an obstruction in the flow of saliva either to or through the excretory duct. Salivary calculi are most frequently found in the sublingual gland or its excretory duct (the duct of Bartholine) and usually appear as tumours under the tongue on one side or the other of the phrenum; they are sensitive upon pressure, and occasionally fluctuating. If the body is lodged in Wharton's duct, there will be enlargement of the submaxillary gland, in addition to the sublingual tumour. The concretions are sometimes found in Steno's duct, in which case there will be enlargement of the parotid gland. The subjective symptoms are pain and difficulty in mastication and deglutition, with more or less impairment of speech. The treatment consists of free incision by the knife. For purposes of diagnosis, an exploration can first be made through a small opening by means of a probe.

Dr. WAGNER detailed the histories of four cases of salivary calculi; in one the calculus weighed 93½ grs., the largest on record.

Third Day, May 24.

Dr. HARRISON ALLEN (Philadelphia).—*Congenital Defects of the Face, with Exhibition of a Rare Form of Cleft Palate.*

He exhibited the skull of a Seminole Indian, illustrating a rare form of cleft palate, the cleft being directly in the median line. The ordinary form of cleft palate results from failure of the fronto-nasal process to descend to a level with the sides of the face at the time when these are being developed from right to left. A fissure is thus left on one or both sides of the face, as in the ordinary form of cleft palate. Among other abnormalities presented by the skull was a spur of bone, exercising direct pressure on the turbinated bodies on the left side. Dr. Allen expressed the opinion that many cases of nasal headache, catarrh, etc., are due to pressure-effects of congenital origin, and that deviations of the nasal septum are also in the large majority of cases due to congenital causes, and not to traumatism, as is generally believed.

Dr. J. H. BRYAN (Washington, D.C.).—*On Some of the Manifestations of Syphilis of the Upper Air-Passages.*

He reported three cases of syphilitic disease of the throat. One was a case of stenosis of the larynx occurring in a woman who had acquired syphilis through her husband. The second was a case of syphilitic tonsillitis undergoing suppuration, although the patient denied a specific history. The third was a case of congenital syphilis of the pharynx and larynx. The patient was a girl, aged twelve years, who also had an interstitial keratitis in both eyes, and suffered from deafness; the notched teeth were absent.

Dr. MULHALL suggested that in the second case narrated, the sup-

puration of the tonsil might have been coincident with the syphilis, but independent of it. Dr. Mulhall said he was associated with Mr. Hutchinson for a number of years as his assistant, and saw many cases of hereditary syphilis in which the teeth were not notched. On account of their more defective nutrition, hereditary syphilis produces in English children much greater ravages than in children in this country.

A paper on *An Improved Method of Draining the Antrum of Hiemore*, by Dr. GEORGE W. MAJOR (Montreal), was read by title.

Dr. JOHN N. MACKENZIE (Baltimore).—*Aspergillus-mycosis of the Antrum Maxillare.*

He reported the case of a patient who for a long time had suffered from antral disease, with the occasional passage of a false membrane from the antrum. Some of the membrane was examined microscopically, and was found to consist of a number of layers, one of which was covered with a mass of *aspergilli*—probably *aspergilli fumigati*.

Dr. W. K. SIMPSON (New York).—*A Case of Sarcoma of the Soft Palate, illustrating the Degeneration of a Benign (Papilloma) into a Malignant Growth; Removal of the Soft Palate; Death.*

The patient was a girl, who, at sixteen years of age, had multiple papillomata of the soft palate, which were removed. Sixteen months afterward there was a recurrence of the growths. They were removed with the galvano-cautery knife. After this a number of recurrences rapidly took place, and a microscopical examination of the growth showed it to be sarcomatous. The patient complained of no pain; there was some difficulty in swallowing and slight thickness of speech. The cervical glands were not enlarged. In August, 1890, the entire soft palate was removed under cocaine, one dram of a four per cent. solution of the drug being employed by spray and subcutaneously, without ill-effects following. Two months after this operation signs of recurrence were noticed; the growth rapidly extended to the naso-pharynx, and the patient died of inanition in April, 1891, two years and three months after the appearance of the apparently benign papilloma, and eight months after the final operation.

Dr. ROALDES cautioned against placing too much faith in the report of the microscopist. Six years ago he removed a fibroid tonsil from a member of his own family. He submitted sections to a number of pathologists, both in this country and abroad, and all pronounced it round-celled sarcoma. The case has been carefully watched, and there have been no signs of recurrence. If the advice of the pathologists had at once been acted on, and an operation performed, the case would have been included among the successful cases of operation for sarcoma.

Dr. BEVERLEY ROBINSON (New York).—*Opening of the Discussion upon Diphtheria: its Prophylaxis and Treatment.*

He confined himself chiefly to the causation of the disease and the methods of isolation and disinfection. In order to stop its development, proper attention must be given to house sewage; closets, cellars,

etc., must be kept clean and well-ventilated. When the disease actually occurs, complete isolation should be insisted on. In doubtful cases the exudate from the throat should at once be submitted to bacteriological examination. No one should be allowed access to the patient, excepting the physician and the nurse. Perfect isolation can only be obtained in suitable hospitals especially erected for the reception of patients suffering from contagious diseases. Proper attention should be given to the ventilation of the sick-room, the disinfection of the discharges, etc. In case of death, public funerals should be forbidden. Strict rules should be enforced for the protection of schools. The bacilli of diphtheria may be found in the pharynx as long as five weeks after the disappearance of the membrane. The physician in attendance upon the case should at every visit be provided with a gown and hood, which can be disinfected on his departure. The room, bedding, etc., should be thoroughly disinfected. Among the most satisfactory disinfecting agents to be used in these cases are eucalyptus, turpentine, carbolic acid, creosote, and tar.

Dr. ROBINSON stated that despite the advances made in the bacteriological investigations of diphtheria, the treatment is still uncertain and unsatisfactory. As regards the internal treatment, many drugs have been advocated. Mercuric chloride has been highly praised by some, while others have seen no especially good results follow its use. In the Friedrichshain Hospital at Berlin no internal treatment at all was employed, and yet there were 64 per cent. of cures. At the Willard Parker Hospital the only constitutional treatment employed at present is to give alcoholic stimulants throughout the course of the disease to those showing any tendency to heart-failure. As regards local treatment, sprays, irrigations, or gargles can be employed, in accordance with the age and strength of the patient. Dr. Robinson stated that in his experience it is more useful and satisfactory to disinfect and cleanse the throat by means of sprays employed not directly through the mouth, but indirectly through the nose. In this manner the medicated solution is brought into more complete contact with nearly every portion of the diseased membrane than in any other way, and with less distress and fatigue to the sick child. The nasal sprays should be coarse, never too strong, and repeated every hour or two, depending on the malignancy of the case. For spraying purposes, mild solutions of carbolic acid, with lime-water, borax, or sodium bicarbonate, can be used, or very mild solutions of mercuric chloride. The solutions of carbolic acid should not be stronger than 1 or 2 per cent.; those of mercuric chloride, 1 to 4000, 1 to 8000, or 1 to 10,000. As regards the value of carbolic acid in this disease there is a difference of opinion; by some it is considered to be useless and even harmful. From time to time the fauces and tonsils and pharynx should be given a thorough cleansing with the same spray or by means of a syringe. Local applications with a swab or brush can also be made with mercuric solutions, 1 to 500, or even 1 to 250. Tincture of ferric chloride in glycerine and water, or a tablet of mercuric chloride in solution in water or milk can be given, followed by liquid food and alcoholic stimulants.

Vapours of turpentine, carbolic acid, and eucalyptus should be used more or less constantly in the room.

Dr. MULHALL referred to the value of "house-posting." Personal prophylaxis is of the greatest importance in this as in other contagious diseases. The general condition of children should be looked after; enlarged tonsils and other morbid conditions should be rectified. Dr. Mulhall has found the best method of treatment to consist in sterilizing the upper air-passages and keeping up the nutrition of the patient. The sterilization of the nose and throat can be done with very little discomfort to the patient by means of the common household syringe. It is important to disinfect the posterior nares, as the absorption of toxic matters in that region is very rapid. This can be done by means of a little glass syringe.

The further discussion of this question was postponed until the next meeting of the Association.

The following officers were elected for the ensuing year :—

President—Dr. D. Bryson Delavan (New York).

Vice-Presidents—Dr. J. C. Mulhall (St. Louis); Dr. W. E. Casselberry (Chicago).

Secretary and Treasurer—Dr. Charles H. Knight (New York).

FIRST PAN-AMERICAN MEDICAL CONGRESS.

Held in Washington, D.C., September 5th, 6th, 7th, and 8th, 1893.

SECTION ON OTOTOLOGY.

C. M. HOBBY, M.D., Iowa City, Iowa, *President.*

MAX THORNER, M.D., Cincinnati, Ohio, *Secretary.*

The PRESIDENT, in his address of welcome, laid stress upon the fact that this meeting of the First Pan-American Medical Congress would afford to the otologists of America opportunity of interchange of opinions between the north and south, the more than one hundred degrees that separates the *confrères*, and expressed a hope that hereafter we may frequently share in similar opportunities for comparison of experience. Continuing he said: Meanwhile we have assurance of the kindly help of our fellows from the denser populations of Europe; and I congratulate you upon the presence with us of one whom we all reverence as a master; for whether we have been pupils at Vienna, or have through literature gleaned the steps by which otology has advanced since the days of Toynbee, there is not one of us but who acknowledges a debt of gratitude for the landmarks established by Prof. Adam Politzer, and I think I voice the universal sentiment of felicitation that this genius is still active, and that he is here to speak for himself. I assure you that you will hereafter rejoice to have been present.

The Prevention of Deaf-Mutism, by Dr. C. M. HOBBY, Iowa City, Iowa.

The proportion of deaf-mutism remains nearly constant as judged by census returns, and taking the defective classes as a whole—viz., insane, idiotic, blind, and deaf-mute—constitutes fourteen per cent. of those to be considered, a total of more than 50,000. In considering how large a number may come to be considered as preventable, we are met with the assumption by teachers and authors of text-books, that fifty per cent. of the mutes are congenitally so. But this is not in accordance with facts, at least for the United States, as it is readily shown that not more than fourteen per cent. and probably only ten per cent. are born deaf. Again, middle-ear disease plays only a small part in the production of mutism. Severe middle-ear lesions of both ears are only found in about fourteen per cent. of these cases, and doubtless labyrinthine disease exists in the majority of these. Even in cases attributed to scarlet fever less than one-half exhibit distinctive lesions of both middle ears.

The principal cause of deafness resulting in deaf-mutism is to be sought in the various forms of meningitis occurring in the early months of life, and the resulting labyrinthine disease, cerebro-spinal fever, being a prominent factor in the United States.

Prevention must come then principally from associated study of clinical history and pathology, and especially pathology of little understood inflammations of the pia mater. Great difficulties arise from the difficulty of recognizing disturbance of hearing in infants, and in the fact that the ear lesion frequently follows the acute disease without external manifestations, and after a considerable interval of time. Especially should the general practitioners of the country be warned of the frequency with which deafness follows apparently slight ailments of children, and they should be impressed with the fact that destruction of hearing most frequently takes place without symptoms referable to the ear.

Otacoustic Treatment: Its History and Results upon the Deaf and Deaf-Mutes. By J. A. MALONEY, M.D., Washington, D.C.

Experimentation in physics, and principally acoustics, prior to 1886, resulted in the development of the instrument since known as the otophone, which differed in construction from anything used for that purpose. It had two chief characteristics:—

1. It did not enter the meatus auditorius externus;
2. It was a tube closed at one end by a flexible membrane, and thereby confined a column of air.

The instrument was demonstrated before the College of Physicians of Philadelphia in 1887, and subsequently tests were made upon deaf-mutes at the Pennsylvania Institution for the Deaf and Dumb, and at the National Deaf-Mute College, Washington, D.C.

It then occurred to the author that a new field of treatment in chronic deafness might be opened. A great deal then was dependent upon tentative deduction. In the use of Politzer's inflation slight benefit was conferred by equalizing the pressure upon each side of the membrana tympani. In the use of the otoscope success was rare, because it pro-

duced noise, and the ear in the higher and lower animals shrinks from the same.

Then he directed his attention to a system of aural massage, which had for its chief feature sound arbitrarily applied, as a therapeutic agent in chronic deafness, and designated by him as "otacoustic treatment," and has since been known by that title. Much time was required in formulating the method of treatment during the first two years, the work being empirical, because he had no rule of procedure based upon experience of others for his guidance. That partial ankylosis could be relaxed by this form of passive motion was accepted by some of the most eminent otologists of our day, and he was encouraged by them to persevere.

A number of cases were then reported, showing the good results of otacoustic treatment upon deaf and deaf-mutes.

Prof. ADAM POLITZER demonstrated a large collection of magnificent anatomical and pathological specimens. He also exhibited a number of new or improved ear instruments.

Pathological Conditions following Piercing of the Lobules of the Ear.
By Dr. MAX THORNER, Cincinnati, Ohio.

The custom of piercing the lobules of the ear for the purpose of wearing ear-rings is considered a relic of barbarism and superstition. Not rarely, serious and even fatal consequences have been observed after this procedure. Scattered through medical literature we find reports of trismus, erysipelas, severe inflammations, disfigurements, formation of tumours, etc., as possible sequelæ of this reprehensible custom. The following cases have come under the observation of the author:—

Erysipelas of the Auricle.—Three cases. The first was a child two years old, the two others adults, in whom a severe attack of erysipelas, spreading over neck, scalp, and face developed soon after the placing of the ear-rings.

Deformities.—Two cases of cleft lobule were seen, caused by the ear-rings cutting through the lobe. In one case the ring had been replaced close to the slit left by the first ring, and there resulted a lobule consisting of three narrow strips. An operation after the method of Knapp gave good cosmetic results. In another case the opening made for ear-rings had become enlarged to the size of a lead pencil. The opening was closed by one suture, after paring the edges.

Eczema of Auricle, acute as well as chronic, was observed in a number of cases. The acute form yielded readily to treatment with ointments (*e.g.*, ungu. diachylon), after the ear-ring had been removed. The chronic form is more obstinate.

Tumours of Auricle.—Three cases. One case of fibro-chondroma of auricle in a white lady, aged thirty-two. Began to make its appearance ten years ago. Was twice removed, but soon reappeared. About three years ago had reached the size of a small chestnut, involving the whole lobus. Was then removed by a V-shaped excision, and had not returned two years after the operation.

The second case was a typical fibroma of the auricle. The patient

was white, thirty-five years old. When fifteen years old her ear-rings were caught on a pillow, and both forcibly torn out. A lump began to grow in both lobules, which were partially amputated two years later. The left tumour has never returned. The tumour in the right ear returned six times. Two years ago the tumour had reached the size of a large English walnut, involving the larger part of the auricle. The whole auricle was then amputated. The tumour has not returned.

The third case was that of a keloid of the auricle and face. The patient was an unmarried lady, white, thirty-five years old. When eighteen years old a small, very painful tumour developed in the edge of the puncture made for ear-rings. Within the following seventeen years this tumour was the cause of untold misery for the patient. She had been operated upon with the knife six times, and caustics in untold quantities, electrolysis, hypodermic medication, etc., had been tried again and again. She was hardly ever free from pain, which increased at the time of menstruation. There was a solid, sessile tumour about one inch by three-quarters of an inch in diameter, extending from the cicatrical edge of the auricle, of which the lobule was gone, into the cheek. Removal was effected by an elliptical incision in healthy tissue, and the tumour lifted with a portion of the subcutaneous adipose tissue from its location. No signs of recurrence one year after the operation. On former occasions the tumour commenced to reappear within six months. The microscopical examination showed the removed tumour to be a true keloid.

The author concludes that these cases are more frequent than we usually think. "And while in most cases no serious consequences result "from the folly of piercing the lobes, yet there occur from time to time "cases where a life is at stake, or where the enjoyment of life is seriously "interfered with. It is time that this relic of barbarism ought to be "relegated where it belongs, to the bygone follies of superstition and "fashion. And the day is, I hope, not far distant, when it will be con- "sidered an evidence of brutality to have a tender and unprotected child "subjected to such an unnecessary and mutilating procedure."

Discussion by Prof. POLITZER and Dr. HOLMES.

On a Peculiar Affection of the Labyrinthine Capsule as a frequent cause of Deafness. By Prof. ADAM POLITZER, Vienna.

The subject of the writer's paper was a particular form of deafness, occurring usually in an older person, and due to a pathological alteration of the labyrinth capsule. During the examination of a number of temporal bones of people who had suffered from progressive deafness, the author remarked circumscrip bony protuberances in the neighbourhood of the niche of the fenestra ovalis. These protuberances were of the size of a lentil, rather flattened towards the edges, and contrasted with the surrounding parts by their yellowish colour. The mucous membrane of the tympanic cavity was generally normal, occasionally somewhat thickened. The fenestra ovalis was, in some specimens, of normal appearance, in others narrowed by protuberances. The stapes usually immovable; in very few specimens, however, slightly movable.

In the second edition of "Diseases of the Ear," published in 1887, may be found a drawing of a case of bony ankylosis of the stapes. Besides changes in the stapedio-vestibular articulation, the capsule of the labyrinth shows considerable enlargement of the lacunar medullary spaces. These changes were interpreted by the author, as well as by others who had observed similar conditions, as being due to chronic interstitial middle-ear catarrh.

The study of the specimens which the author demonstrated to the Section showed that this view is not correct, and that these cases, which have usually been grouped under dry, sclerotic middle-ear catarrh, are in reality due to a primary lesion in the capsule of the labyrinth.

The following are the histological changes observed in the microscopical section made from the specimens: The parts surrounding the oval window are transformed into a uniform mass of newly-formed osseous tissue. The normal articulations between the stapes and oval window have entirely disappeared. The plate of the stapes is frequently thickened, even to five or six times the normal size. The ossificatory changes begin in the bony labyrinth capsule, and extend towards the oval window and the plate of the stapes, sometimes even towards the cochlea and the vestibulum.

Sometimes the ossificatory changes only produce partial ossification of the stapedio-vestibular articulation, so that in the same section we find one portion of the articulation completely ossified and another still membranous. This partial ankylosis explains why the hearing power for a loud voice is still retained in some cases.

The newly-formed osseous tissue stains more deeply with carmine, and this difference in colour enables us to distinguish the pathological tissue from the normal, even with the naked eye. The number of bone corpuscles is usually increased, the lacunar and medullary spaces are generally larger, and contain fibrillar tissue, cells, blood-vessels, osteoblasts and osteoclasts.

It may be well to assume that the changes are due to a primary inflammatory process in the labyrinth capsule, producing a formation of new and young osseous tissue, which successively replaces the normal bone, and by extension towards the stapes and other contiguous parts finally causes the important functional changes due to ankylosis of the stapes. These conditions represent one form of progressive deafness. That other pathological conditions, entirely different in character, caused by chronic middle-ear catarrh, such as calcifications and ossifications of the stapedio-vestibular ligament, or adhesions between the branches of the stapes and the lower wall of the niche of the oval window, may often produce similar clinical symptoms is a well-established fact.

Very little could be ascertained in regard to the etiology of this form of progressive deafness, as the disease was observed in old people from whom it was impossible to obtain an accurate history. In two cases gout may be assumed as a possible cause. That syphilis undoubtedly may cause such conditions may be assumed from the investigations made by Moos, who found hyperostotic changes on the labyrinthine wall of the tympanic cavity.

Specimens and drawings were exhibited and explained by the author, illustrating the conditions described.

In conclusion, the writer refers also to the practical bearing of his investigations, inasmuch as these conditions demonstrate to us why our therapeutic efforts are not always crowned with success. An operation can only afford possibilities of success provided the affection in question has not yet caused ankylosis, and that even should an operation in some cases bring immediate relief a permanent result can hardly be expected if the anatomical changes, which were exhibited in the specimens, are only considered, inasmuch as the affection is progressive, and even the extraction of the stapes would not prevent an obliteration of the oval window.

On the Application of Stacke's Method in Chronic Aural Catarrh.
By DR. FELIX COHN, of New York.

The results obtained by the method usually employed in excision of the ossicles have not been very encouraging, so that the author attempted the application of Stacke's method of operation, which he calls "extra-auricular," in contradistinction to the ordinary method, the intra-auricular, in these cases. Although no cases of its application in chronic aural catarrh have been as yet reported, *a priori*, this method appeared to have considerable advantages over the usual method, chiefly in that the regeneration of drum-membrane might be prevented if the entire tympanum and the limbus be removed; that the external wall of the attic being removed, a larger area for the impact of sound-waves on the stapes and oval window is provided; that the intra-auricular method does not permit of thorough asepsis; and that, finally, the field of operation being larger the successful removal of the ossicles is, in all cases, certain. As the operation was experimental in both cases, only one ear was operated.

Two cases are reported.

Case I.: Man, aged twenty-one, operated November 21st, 1892, on left ear; suffered from severe tinnitus and progressive deafness. In left ear conversation in low voice not at all audible; loud whisper, one inch. Six weeks after operation tinnitus entirely disappeared in operated ear: ordinary conversation, three feet, low voice, eight feet.

Case II.: Girl, aged sixteen, suffering from sclerosis and stapes ankylosis, operated December 15th, on left ear. On examination, hears loud voice at one foot; immediately after operation hears ordinary conversation at one and a half feet; loud voice, eight feet. Six weeks later, hearing is reduced to condition before operation.

The author does not claim any wide applicability of this operation, or the extra-auricular method, in the present state of our knowledge of chronic aural catarrh. Though the success of the experiment has not been brilliant, it has, however, demonstrated the perfect safety of this method, and its availability in cases in which the intra-auricular method is not practicable. With improvement in diagnosis and careful selection of cases, the author believes that better results will be attainable by Stacke's method than by the intra-auricular method.

Opening the Mastoid Cells in Acute Inflammatory Middle-Ear Diseases. By Dr. L. D. BROSE, Evansville, Indiana.

Although the indications, as laid down in the text-books, for opening the mastoid cells in acute middle-ear diseases seem well defined, it has nevertheless been my experience to have met with cases where, notwithstanding the symptoms present indicated mastotomy, and because of failure to get the patient's consent, or because the operation through other causes was delayed, the patients eventually recovered solely through local treatment.

Otorrhœa accompanied by pain, œdema over mastoid, and fever, resisting antiplogistic treatment for eight days (Schwartz) is an indication for mastotomy, especially if the posterior wall or external hearing canal is swollen and bulging, and deep-seated furunculosis is excluded. In acute suppurative middle-ear inflammation, without mastoid involvement or pus retention, resisting usual treatment two or three weeks, mastotomy is indicated (Dr. Heymann, of Warsaw). Also as a prophylactic measure when the ear drainage is insufficient, because of swelling of the middle ear lining membrane, or size or location of drum perforation or stenosis of auditory canal. Cerebral abscess, suppurative phlebitis with sinus thrombosis, extra-dural suppuration and meningitis, even with the presence of pyæmic or septic symptoms, indicate mastotomy. Otherwise incurable and recurrent mastoid neuralgias indicate opening the mastoid.

In operating, the author follows on the whole the directions laid down by Hartmann. The operation is terminated when pus is reached. For more extensive suppuration, and where the attic is largely the seat of the disease, the posterior wall of the inner end of the auditory canal may likewise be removed and a drainage tube at times carried through the new-formed opening and out of the external meatus. Good results can be obtained equally well with the chisel or trephine, more depending upon the operator than upon the instruments with which the operation is performed.

Chronic Disease of the Middle Ear, its Prognosis and Surgical Treatment. By Dr. ALBERT H. TUTTLE, of Cambridge, Mass.

In a brief history of the operation for removal of the membrana tympani and ossicles, it was shown that in the beginning the operation was performed for the relief of deafness; later, when the operation was applied for the relief of chronic suppuration, the earlier indication was lost sight of, and only at a recent date have operators removed the membrana tympani and ossicles to obtain an improvement in hearing. In the dry form of aural catarrh the writer claimed a great improvement in hearing, which occurs when the footplate of the stapes is removed, especially in those cases where the deafness is marked and the stapes firmly fixed in the oval window. The operation under these circumstances is a very difficult one owing to ossific deposits in the attachments of the ossicles and an atrophy of the crurae. When the stapes is firmly fixed the removal of the incus alone is a useless operation. In some cases, owing to the shape of the external meatus, the removal of the stapes may

be impossible. The patients recover rapidly, and suffer only for a few hours from vertigo, which is sometimes absent.

In suppurating otitis media the removal of the larger ossicles was recommended, but the writer promoted the reformation of the membrana tympani by leaving as much as possible of its marginal attachments, on account of the belief that continual suppuration after the removal of the ossicles and treatment of the middle ear is due to mastoid disease, and requires a special operation, and the greater tendency to recurrent suppuration where the cavities of the temporal bone are not protected from atmospheric influences by the presence of a protecting membrane.

The indiscriminate removal of the ossicles in cases of vertigo and tinnitus was cautioned against, and the operation only recommended where such cases as adhesions of the membrana tympani or ankylosis of the ossicles can be predetermined.

In complete occlusion of the Eustachian tube the removal of the membrana tympani and ossicles is a questionable procedure, and in ossification of the membrana tympani the piecemeal removal of the deposit is recommended.

The Indications and Preferable Methods for Mastoid Operations.
By Dr. S. S. BISHOP, of Chicago, Ill.

The author believes that the majority of surgeons are too conservative, both as to the time selected for surgical interference and the extent of the operation. He has seen fatal results follow (1st) refusal to allow the operation, (2nd) after operations too long deferred, and (3rd) after operations that were performed too timidly to remove all the diseased tissue; but he has never known a death to occur as the direct result of the operation itself.

The disease demanding the operation is far more dangerous than the right surgical measures for its relief. Greater freedom of action and boldness of methods will add lustre to the records of our work.

Dr. BISHOP has formulated the following six rules by which he has been guided in deciding when to operate. The mastoid should be opened:

1. When there is acute inflammation of the bone that resists palliative treatment.
2. When repeated swellings and abscesses occur.
3. When there is bulging of the posterior and superior wall of the meatus, with middle-ear suppuration.
4. When there is a fistula.
5. When there are severe pains in the same side of the head as the diseased ear, resisting all other treatment.
6. When a foul otorrhœa cannot be cured by any other means.

His choice of an operation is generally Schwartze's, modified according to the exigencies of each case. Stacke's method leaves too extensive a wound surface, and it takes too long to heal. There is a tendency to resulting stenosis of the external meatus that demands the use of supporting tubes.

Light reflected from a forehead mirror is preferred, and the wound is kept partly open with iodoform gauze until it heals from the bottom.

Aristol is the best cicatrizant, and has soothing or anæsthetic properties.

DISCUSSION ON THE PRECEDING FOUR PAPERS.

Dr. C. H. HOLMES, in opening the discussion, could not agree with Dr. Cohn that the operation by the Stacke method was more aseptic than when the operation was performed through the external canal. The results from the operation in chronic catarrh of the middle ear have been anything but satisfactory, and therefore there is little to justify us in making such an extensive operation as proposed. He did not think that drills and trephines, as mentioned in Dr. Brose's paper, should even be considered as a part of the armamentarium of the modern aural surgeon. They are instruments that had their day and defenders, but are—and justly so—relegated to the past. He was not in favour of using the drainage tube, as described by Dr. Brose, passing through the opening in the mastoid into the middle ear and out of the external canal, because, if the disease warranted such an extensive interference with the middle ear, the method of operation was not radical enough; and if only for the purpose of giving vent to the mastoid cells, it is not good surgery to meddle so much with the middle ear and endanger the position of the ossicles.

He had examined cases where the stapes had been removed; Schwartze's and Lucae's experience had been very unsatisfactory. He read a letter recently received from Prof. Schwartze and another from Dr. Stacke, wherein both spoke unfavourably of the operation, and Prof. Schwartze, referring to the reports by Dr. Jack, declared that the time for judgment upon these cases is entirely too short, and at present he does not believe the results will be what has been claimed.

He agreed with Dr. Bishop that aural surgeons had been too conservative in operating, and it was especially true that many did operate, but were too timid. If we have once determined that it is necessary to operate, we should use the utmost care to guard against opening into dangerous parts, but we should be bold enough to remove all the diseased tissue. He also begged to call the attention of the gentlemen to the fact that Wilde's incision should not be practised. Schwartze has omitted it in his last work because it is painful, and, if the disease has advanced far enough to warrant the operation, the cells in nearly every case are also involved, and the patient can only be benefited by opening the bony cortex.

If the flap is formed from the lining of the external canal, according to Stacke there can be no collapse after the operation, and, with proper packing, stenosis should never occur. In the experience of the speaker, the canal will admit of the largest-sized speculum being used, and every part of the cavity can be freely inspected. We do not expect the cavity formed by the removal of diseased tissue to be refilled with cicatrical tissue—in fact, this is the most undesirable thing that can happen. What we do want is a cavity covered with healthy epithelial cells; and this can never be accomplished unless firm and persistent packing is practised until all of the cavity is covered with epithelium.

Prof. POLITZER remarked that he never opens the antrum in acute cases. The mastoid trouble is in acute cases rarely in communication with the antrum, and it is better to open simply the mastoid cells. We have thus a clean wound which heals rapidly. Of late he has tamponed the wound for one or two days with iodoform gauze—in fact, has sometimes closed the wound immediately after the operation, after having scraped away all diseased bone. The patients were able to leave the hospital after one week.

In cases of chronic sclerotic middle-ear catarrh he does not, on the whole, expect to get good results from the extraction of the ossicles. In some cases the operation is liable to impair the condition of the ear. In chronic purulent cases he thinks we must expect little from the extraction of the ossicles alone. Küster's method of opening the attic and antrum has been by him employed with good results.

Dr. FELIX COHN wished to state distinctly that he is not an advocate of the excision of the ossicles in aural catarrh, but he has reported the two cases after having satisfied himself of the applicability of the method. He believes that there are only a few chronic conditions in the tympanic cavity in which excision of the ossicles will produce permanent results; and the operation ought to be limited to the prevention of a progression of the disease, or for cases of insufferable tinnitus, so that even an otologist commanding a very large material will not find occasion to operate many cases. As to the *technique*, he thought that the extra-auricular (Stacke's) method was just as advisable, if not preferable, to the intra-auricular procedure. However, wholesale excision of the ossicles should be condemned.

Dr. BISHOP, closing the discussion, said that he did not often insert a drainage tube into the wound of the mastoid operation. The superficial opening is maintained by a pledget of iodoform gauze until the wound heals from the bottom to the opening of the bone. After Stacke's operation he has been in the habit of using a hard rubber tube in the auditory canal for one day, followed by a soft rubber tube for a few days. In regard to the removal of the drumhead and ossicles for dry catarrh of the middle ear, he had become exceedingly cautious. Four cases had come to his knowledge, in all of which the results were so disastrous as to deter him from operating for this disease. In one instance the operation was followed by total deafness in the operated ear, suppuration and vertigo. In another, the tinnitus aurium increased greatly after the operation. In suppuration and necrotic processes he did not hesitate to remove the ossicles.

The Phonograph in the Treatment of Deafness. By Dr. JOHNSON ELIOT, Washington, D.C.

The Edison phonograph is capable of reproducing the vibrations composing sound; these, falling upon the membrana tympani, are considered as feeble blows (*tapotement*), causing passive motion of the ossicles. Could the action be confined to the middle ear the treatment would be productive of good results, but this is impossible, as any vibration is carried through the ossicular chain to the endo-lymph. When the

ordinary voice sounds as recorded by the phonograph were used the tympanic muscles would soon become fatigued. The labyrinth is protected from sounds of large volume by the yielding of the membranous walls, and a special valve, the *membrana tympani secondaria*.

In chronic catarrhal otitis media the lining membrane is in a sclerosed condition, and the valve action is greatly interfered with. Where these conditions are present the vibrations are thrown back on Corti's organs, which are over-stimulated. In eighteen cases reported the treatment was given about every third day for periods varying from one to seven months. In but one case did the tinnitus abate, and this for a day, when it returned. None of the cases improved in condition; in one case "nervous prostration" occurred in the course of treatment, in some a slight giving way of the adhesion was noticed.

Clinical Contribution to the Study of Aural Syphilis. By Dr. MAX TOEPLITZ, of New York.

Report of a case in which the labyrinth was affected primarily in the course of a freshly acquired syphilis, and in which the aural affection began simultaneously with the appearance of roseola. The special features of this case are: (1) The affection of the labyrinth occurred after the appearance of the pharyngeal mucous patches; (2) the aural lesion took place during the secondary stage and without attacking the middle ear; (3) the diagnosis of syphilis was made from the ear. The case improved under antisyphilitic treatment.

The Present Condition of Otology in Europe. By Dr. LAWRENCE TURNBULL, of Philadelphia.

In the first part of this paper the author relates his observations in the otological clinics of Europe during a visit in 1892 and 1893. He compared the present position of otology with that of twenty years ago, and found everywhere a more perfect knowledge of the normal pathological and microscopic anatomy of the ear both in men and animals. With this precise knowledge of anatomy there followed a more rational use of therapeutics both in their local and general application. Definite operative and mechanical methods of treatment, with perfect illumination by gas or electricity, are the general rule nowadays. The old empirical use of the syringe with hot alkaline solutions, without looking into the ear has, among general practitioners, entirely disappeared. An important union has taken place between the laryngologist, rhinologist, and the otologist, which happy combination was well illustrated at the meeting of the British Laryngological and Rhinological Association, and at the Section of Otology and Laryngology at the meeting of the British Medical Association, at Nottingham, 1892. The author then continues to describe the methods as practised at present by the representative otologists of Great Britain, Germany, Austria, Belgium, and France.

The second part of his paper has the separate title:—

The Operation of Excision of the Ossicles in Chronic Suppurative or Non-Suppurative (Progressive Sclerosis or Proliferous) Diseases of the Middle Ear—with Cases.

In chronic suppurative disease of the middle ear, after all ordinary

measures have failed, the excision of the membrana tympani and ossicles is resorted to for relief or cure of carious necrosed bone, or diseased tissues, causing mechanical obstruction to the entrance of sound, and is now a well-established rule of practice, as well as a decided advance in aural surgery.

The operation of "otosclerectomy," or the surgical removal of all or part of the sclerosed and ankylosed conductors of sound in non-suppurative or chronic middle-ear inflammation, has received the sanction of the majority of the aurists of the United States, and of many in Germany, for properly selected cases. Failures may and do occur, as well in the hands of the tyro as in those of experts. In properly selected cases the author has had good success, when he found a patient with the obstruction anywhere between the thickening and adhesions of the membrana tympani, ankylosis of the malleus with the incus. It is almost always necessary to perform a preliminary operation by a removal of an oval piece of the drum with the malleus. When we find that this opening improves the hearing, or relieves the tinnitus and vertigo, the operation has to be completed by removing the incus.

In dry progressive sclerosis an incision in the membrana tympani posteriorly to the malleus, followed by traction on the incudo-stapedial joint, has been advised. If this fails in removing the annoying symptoms, it will be safe to excise the membrana tympani and the ossicles. By this operation the author succeeded in stopping sclerosis. Some illustrative cases are reported. The following is the most interesting : A lady, aged forty-six, was profoundly deaf from otitis media, catarrh (chronic) of many years' duration. There was in the right ear thickening of the membrana tympani, the handle attached to the promontory, and the whole malleus twisted on its axis. Eustachian tubes patulous. Hearing, pressed contact. Tuning fork full C, auditory nerve normal, bone conduction good. Excessive tinnitus. The left ear was in similar condition. The operation was performed, chloroform and ether being used, Feb. 5, 1892. The malleo-incudal joint was firmly ankylosed. The membrana tympani and part of the malleus were removed, though the operation was attended with some difficulty on account of the ensuing hemorrhage. The hearing was greatly improved after the operation, and continued so that she could hear an ordinary voice ; the tinnitus had decreased. June, 1893, hearing continued perfect in the ear operated upon ; a new membrane had formed.

In these operations it has not always been found necessary to remove the incus and stapes. Also in cases of severe pain in the ear of an obscure nature, with a dreadful feeling of pressure, much relief, of a permanent character, has been afforded the patients by opening the drum and disarticulating the malleus. Cases accompanied with atrophy or paralysis of the auditory nerve should not be operated upon. Great care must be taken not to injure the Fallopian canal with the incus hook. Children can be operated upon, and even old men have had their hearing restored for ordinary conversation, also experiencing great relief from tinnitus and vertigo. Accidents are liable to occur, but much can be done to prevent them. No death is known to the author to have followed the

operation, but cases have been reported where the hearing power has been made worse.

Discussion by Drs. THORNER, HOBBY, MALONEY, and the author.

Description and Demonstration of Focussing Ear Trumpet. By Dr. EDMUND D. SPEAR, of Boston, Massachusetts.

As the cone-shaped tubes are best suited for collecting sound-waves for transmission into the ear, one of this form has been chosen to illustrate his design for a focussing ear trumpet. A tube of moderate length for convenience in handling has been taken. At the apex of the cone is attached a short tube of a diameter larger than that of the average sized auditory canal. Within this tube, which is made simply as a support, another tube, one end of which is curved, is fitted so as to move in and out. At the other extremity of this tube is fitted a short cone. As the capacity of the longer tube is limited by the various lengths of the columns of air within it, which act as resonators, the power of any given cone is practically fixed. In Williams' ear trumpet the capacity of a given cone is increased by cutting away a portion of one of its sides. In any instrument of this description the capacity is likewise limited. It is possible, however, to vary within definite limits, though this has not been decided upon, the capacity of both forms of cone by means of the sliding tube with its funnel-shaped extremity. (Two instruments—a portable and a stationary one—were exhibited.)

Dr. E. DEAN, of Scranton, Pennsylvania, exhibited a set of *Instruments for the Application of the Galvanic Current to the Orifice of the Eustachian Tube.*

Dr. R. D. BARRET, of St. Louis, Michigan, had on exhibition an *Improved Middle-Ear Powder Blower*, the essential feature of which is that it requires but one hand to introduce the mouth-piece (a Hartmann intra-tympanic canula) and to work the bulb, the capsule containing the powder being immovably fixed between it and the canula. The instrument is steadied by the thumb of the same hand introduced into a ring which is attached to the lower surface of the powder capsule.

Adenoids, a contributive factor in Aural Affections. By Dr. M. D. LEDERMAN, of New York.

The recurrence of the suppurative process in middle-ear disease observed in children is so evidently due to the presence of these growths that their thorough removal should be our first effort. If the patient is suffering from acute symptoms we must delay such surgical interference until the same have subsided. It matters not if this obstructing mass produces the inflammatory state by direct continuity or by inhibiting the action of the levator palati muscles, thus interfering with the proper aeration of the Eustachian tube and middle ear, or whether the circulatory apparatus is influenced by the pressure exerted upon the pharyngeal veins. The knowledge that these growths are an exciting factor is sufficient evidence to urge their prompt removal.

The usual method of treating the incessant discharge by irrigation and insufflations of boracic acid, thus allowing the possible absorption of the tympanic membrane and ossicles, is, to say the least, a most faulty practice. If we would introduce our finger into the pharyngeal vault of young patients suffering from these frequent purulent attacks, in the large majority of cases it would not be necessary to seek further for their origin. When a child suffering from ear disease, be it of the catarrhal or purulent variety, is a subject of adenoids, we may safely offer a favourable prognosis, providing the removal of the hypertrophied tissue can be thoroughly performed. Unless all the lymphatic tissue is ablated (and this can be readily ascertained by the introduction of the finger into the pharyngeal space), the desired results are not forthcoming. By ridding the patient of this overgrown tonsil, we not only benefit the aural complication, but materially influence the general system as well. The symptoms of mouth-breathing, restlessness at night, dull expression of face, nocturnal enuresis, are all relieved by extracting the exciting lesion. We must not anticipate an immediate cessation of the offensive aural discharge, as it takes a few days, and sometimes weeks, for its final disappearance. However, some cases respond so quickly to the treatment that we are at times agreeably surprised. The instrument which has given the most satisfaction in their removal is the modified heart-shaped Gottstein curette, together with Lowenberg's post-nasal forceps, improved by Dr. Gleitsmann.

Discussion by Dr. T. V. FITZPATRICK.

Craniometric Measurement of Five Hundred Skulls in relation to Aural Topographic Anatomy. By Dr. B. ALEX. RANDALL, of Philadelphia, Pennsylvania.

The author has examined five hundred skulls, with the aid of specially constructed calipers, in order to ascertain whether a certain relation of aural topography to the form of the skull could be established, especially in reference to the method of opening the mastoid. The result of his elaborate studies in this direction, elucidated by the detailed account of his measurements, is that, while not sufficiently extensive to be conclusive, they certainly show that the cranial index gives little pointing as to the anatomical relations likely to be met by the operator, and they prove that maximal or minimal dimensions may be encountered in any type of skull.

In the course of this meeting Prof. A. POLITZER was unanimously elected Honorary President of the Section on Otology of the First Pan-American Medical Congress.

THE AUSTRALASIAN MEDICAL CONGRESS, SYDNEY, 1892.

*The following papers relating to LARYNGOLOGY, OTOTOLOGY,
and RHINOLOGY were read.*

Post-Nasal Growths. By Dr. JAMES W. BARRETT and Dr. PERCY WEBSTER (Melbourne).

The writers have been induced to make this communication, believing that, in spite of the voluminous (periodical) literature on the subject, much information is still wanted about it. It appears to them further that post-nasal growths are responsible in Australia for a vast amount of general disease, and that the affection is the chief cause of deafness at all periods of life. That is to say, the larger number of cases of deafness begin in early life, and the cause of deafness in early life is almost invariably post-nasal growths. This paper is based upon an experience of many hundreds of cases. Of these the notes of about two hundred are sufficiently accurate for purposes of general analysis, and an additional nineteen have been selected for purposes of detailed examination. It is unfortunately difficult, in dealing with a disease of this character, to discuss it in a strictly logical manner. The treatment is in the main inductive (the data referred to serving as a basis). One preliminary caution is needful. Patients suffering from this disease almost always seek relief for deafness. The general public, and many members of the profession in general practice, are not yet fully alive to the danger run by mouth-breathers, and mouth-breathers themselves only seek advice when they become ill, or suffer from obvious deafness.

In the first instance, then, we desire to present the facts ascertained by the analysis of the two hundred cases. Of the two hundred, one hundred and ten were males and ninety females. The average age—males, 9·47, females, 9·05.

Numbers in quinquennial periods:—

	Males.	Females.
Under 5 years.....	10 ... 0	
5 to 10 „	51 ... 50	
10 „ 15 „	25 ... 30	
15 „ 20 „	7 ... 7	
20 „ 25 „	5 ... 0	
25 „ 30 „	3 ... 0	
30 „ 35 „	2 ... 1	
35 „ 40 „	1 ... 0	

The age mentioned in each case is that of the patient at the date of first consultation. Of these two hundred cases, thirty-eight were suffering from chronic suppurative inflammation of the middle ear, on one or both sides. The symptoms, put in the order of frequency with which they were complained of, were (1) deafness, (2) ear-ache, and (3) heavy breathing.

By heavy breathing is meant, we think, the peculiar noisy breathing of those who respire through the mouth. Other symptoms were elicited only on examination. The cause of the deafness was generally ascribed by the parents to frequent colds, and in many cases to whooping-cough. Very few were able to fix the date at which the deafness began; but in twenty-five cases the symptoms had lasted

under three months in four cases, three to six months in two cases, six months to one year in four cases, one to two years in six cases, two to five years in five cases, over five years in four cases.

In twenty-one cases the average age at which the symptoms began was 5·5 years. With patients over ten years, it was generally stated that they had been deaf for many years.

The following table shows the way in which we have arrived at the conclusion that the average age at which the disease began was 5·5 years :—

No.	Age.	Duration.	Probable age at which Disease commenced.	No.	Age.	Duration.	Probable age at which Disease commenced.
1	5	4 years.....	1	14	6	12 months	5
2	10	4 ,	6	15	14	Some years.....	...
3	3	1 year	2	16	11	Many years.....	...
4	8	5 months	3	17	15	," .....	...
5	5	12 ,	4	18	9	6 years	3
6	6	18 ,	4·5	19	10	3 ,	7
7	5	12 ,	4	20	15	12 ,	3
8	7	1 month	7	21	10	4 ,	6
9	15	Many years.....	...	22	4	2 ,	2
10	10	3 years.....	7	23	9	3 ,	6
11	6	3 weeks	6	24	19	6 ,	13
12	9	3 years.....	6	25	15	11 ,	11
13	10	9 months.....	9				115·5

Which gives the average age at which the disease began for twenty-one cases as 5·5. The analysis of the nineteen cases referred to, and which are given in full in connection with this paper, gave the following information :—

I. *Oral, Nasal, and other Symptoms.*—Fifteen were mouth-breathers, thirteen had enlarged tonsils, only nine suffered from anterior nasal obstruction caused by chronic rhinitis.

II. *General Condition.*—Thirteen suffered from debility to a marked degree, and are variously described as ill-nourished, anaemic, strumous-looking, dull, awkward, flabby-looking, vitality deficient or pinched, and delicate in appearance; the prevailing characteristic being want of tone. Although many of the cases are described as being strumous in appearance, we cannot recollect seeing one case of marked post-nasal growths in which there were gross strumous lesions, and in passing we may say that we think it quite possible that the strumous face so-called is really the mouth-breather's face. Four cases seem to have enjoyed good health. Several are described as suffering from frequent colds. The palate was high and narrow in six cases; high and broad in four cases: arched but not markedly high in one; fairly normal in four; and narrow and arched in one case. The membrana tympani was normal, and the hearing normal in two cases. It was depressed and catarrhal, or showed signs of former catarrh, in fifteen of the cases, and in two there was, or had been, suppurative catarrh.

Hearing before operation. Hearing after operation. Time after operation stated.

- 1 Very deaf 4 months, $\frac{1}{2}$ R, $\frac{1}{2}$ L.
- 2 $\frac{1}{2}$ R, $\frac{1}{2}$ L 2 months, much improved.
- 3 Very deaf Much improved.

Hearing before operation.	Hearing after operation.	Time after operation stated.
4 $\frac{1}{2}$ R, L normal	3 months, normal R and L.	
5 $\frac{1}{10}$ R, $\frac{1}{2}$ L	3 months, normal R and L.	
6 $\frac{1}{2}$ R, $\frac{1}{2}$ L	3 months, nearly normal R and L.	
7 $\frac{1}{10}$ R, $\frac{1}{8}$ L	$\frac{7}{10}$ R, $\frac{1}{10}$ L.	
8 $\frac{1}{2}$ R, $\frac{1}{10}$ L	No deafness noticeable.	
9 $\frac{1}{20}$ R, $\frac{1}{20}$ L	5 months, $\frac{1}{2}$ R, $\frac{1}{2}$ L.	
10 $\frac{1}{10}$ R, $\frac{1}{10}$ L	5 months, $\frac{1}{2}$ R, $\frac{1}{2}$ L.	
11 $\frac{1}{6}$ R, $\frac{1}{2}$ L	1 month, $\frac{1}{2}$ R, L normal.	
12 Contact R and L. ...	3 weeks, R nearly normal, $\frac{1}{2}$ L.	
13 $\frac{1}{10}$ R, $\frac{2}{3}$ L	$\frac{1}{10}$ R, L normal. Suppuration right ear.	
14 $\frac{1}{2}$ R, $\frac{2}{3}$ L	7 days, $\frac{1}{2}$ R, contact L. Subsequent observations not obtainable.	
15 Contact R, L normal	2 months, $\frac{1}{2}$ R, L normal.	
16 $\frac{1}{10}$ R, $\frac{1}{20}$ L.	4 months, $\frac{1}{2}$ R, $\frac{1}{2}$ L.	
17 Normal R, contact L	10 days, L normal.	

It will be seen, therefore, that in severe cases normal hearing is rarely restored. In addition, in almost every case the improvement in general health was most remarkable. Within a few days the patients became better, the relaxed condition of the facial muscles disappeared, and colour returned to the cheeks. One of the elder patients on the list described the result as being wonderful.

The operation has, in the last few hundred cases, been uniform. The growths have been removed with the middle finger, with the exception of those growths which, depending from the roof of the pharynx, project into the posterior nares, and cannot well be so removed. These we have removed by passing through the anterior nares a long-handled curette. When the curette reaches the pharynx it is received on the point of a finger of the other hand, and guided to effect the necessary removal. We now adopt a uniform procedure in removing growths with the finger. The finger-nail is passed from side to side from the roof of the pharynx down to the level of the edge of the palate, so as to completely clear the posterior wall. We then remove any growths found in the fosse of Rosenmüller, then carefully examine the Eustachian orifice with the finger, and remove any thickened tissue round the circumference of the promontory. We have never yet found any growth on the promontory itself. With the back of the finger-nail any growth on the roof of the pharynx which projects into the posterior nares can then be removed. Finally, we make certain that the posterior nares themselves are clear. This is the only part of the removal which cannot always be performed with the finger. To complete it the use of the curette just referred to is required.

In our earlier cases we used the cutting forceps, the ring knife, and other instruments, but gradually discarded them for the means now adopted, which seem to be very much more efficient. Difficulty sometimes arises in removing the growths from persons over or about the age of twelve years. They are then apt to be tough and fibrous, but we have always succeeded in the manner described. We employ a general anaesthetic or not, according to the patient, but, with the ordinary method given, can remove the growths from the naso-pharynx of a child with just as much certainty without an anaesthetic as with it. When an anaesthetic is used it is never pushed to anything like the stage of full anaesthesia. The only signs of danger ever seen have been where the growths have been removed from patients who were profoundly under the influence of chloroform. It does not seem, apart from chloroform, that any serious accidents or unfavourable results have ever followed this operation, though Dr. Iredell informs me that in one

case—an adult—there was most alarming hemorrhage, which fortunately ceased spontaneously. We have never seen anything analogous to the hemorrhage which sometimes follows the removal of tonsils. It is hardly necessary to add that wherever the tonsils were hypertrophied they were removed subsequent to, prior to, or at the time of the removal of the post-nasal growths.

It seems to us that sufficient attention has not been given to the after-treatment. The removal of the growths really represents the first important item of treatment. For the week following the operation the use of a bicarbonate of soda douche is required. After the week the case must be treated as one of post-nasal catarrh or chronic rhinitis, as the case may be, and managed in the ordinary way. It is unnecessary to occupy space by repeating familiar detail. After all necessary surgical procedures we usually send the patients inland for change of air.

Causation.—Children who suffer from post-nasal growths are frequently those who have suffered from whooping-cough, scarlet fever, measles, diphtheria, or frequent colds. What is the causal relationship between these essential causes and the growths? Recognizing in post-nasal growths nothing more than the enlargement of the adenoid tissue normally met with in the naso-pharynx, the problem reduces itself into an inquiry into the possible causes of such enlargement. That children at or about the second dentition are strongly predisposed to lymphoid enlargements is sufficiently obvious from the frequency of enlarged tonsils and glands elsewhere, and it is not difficult to understand that any of the foregoing ailments might readily cause enlargement of the adenoid tissue in the naso-pharynx. This simple explanation of enlargement as a result of local irritation, to be complete, obviously requires the existence of some such special liability to adenoid enlargement, since similar conditions occurring later in life do not give rise to anything like the same enlargement. It is, however, quite a mistake to suppose that they give rise to no enlargement. Even in adults, a succession of severe colds or attacks of influenza may produce considerable enlargement of tissue in the post-nasal space. Greville Macdonald has elaborated a most ingenious theory to account for the existence of post-nasal growths. Briefly put, it seems to be as follows:—That there is in these cases an anterior nasal stenosis, causing obstruction to nasal respiration. That, in consequence of this, the barometric pressure in the naso-pharynx is lowered to a greater extent during respiration than normally, and so that this anterior nasal stenosis causes hyperemia of the naso-pharynx; consequently, at the age of second dentition, enlarged tonsils and post-nasal growths are met with. Looked at from this point of view, the cause of the growths previously referred to may serve simply as the cause of an anterior nasal stenosis, antecedent to the growths. Macdonald, in support of his theory, refers to the fact that there is generally some rhinitis in these cases, and that the anterior part of the nose frequently wants treatment after the removal of the growths. We cannot say that our experience confirms these statements absolutely. It is perfectly true that in bad cases of post-nasal growths there is chronic rhinitis, and very frequently anterior nasal obstruction, but it is also true that the removal of the growths in the great majority of cases puts an end to both the rhinitis and anterior nasal obstruction. Since reading his explanation, we have further been careful to examine the nares in every case of post-nasal growths, with the result that we found a considerable minority in which there was no rhinitis and no anterior obstruction whatever. Of course, it is quite open to reply that the antecedent nasal obstruction had disappeared, but that is not at all probable, If the cases were one or two in number such an explanation might hold good, but not when they can be counted by scores. Consequently, we fail to recognize in

Greville Macdonald's theory anything like a complete explanation of the causation of post-nasal growths. That it is a factor in their development seems probable, but whether an important or unimportant one remains to be seen. For us the vulnerability of the child at the age referred to, and the existence of severe local irritation, is sufficient in the main to account for their existence. They are very abundant indeed in Melbourne, that is, in the southern part of Victoria but, unfortunately, we have no figures to enable us to estimate their relative frequency near the coast and inland. Our impression is that they are very much less frequent north of the Dividing Range—an impression further supported by the rapid improvement produced in cases of nasal catarrh by a change to that district. There seems little doubt that the high-arched palate is frequently associated with the presence of these growths. What the relationship is we have no means of determining. It seems further impossible to decide why enlarged tonsils should be met with in some cases and not in others. It is, however, worth noting that we have observed marked improvement follow removal of tonsils in bad cases of post-nasal catarrh. The explanation we hope to give at another time and place.

Symptoms.—These must be divided into two groups—aural and general. The aural symptoms have been fully described so frequently that it is unnecessary to repeat them in detail. The general conditions seem to be Eustachian obstruction, then repeated attacks of acute inflammation of the middle ear, followed in a large percentage of cases by abscess and perforation. The attacks extend over many years, and if untreated, end about puberty in sclerosis and ultimate deafness. We are strongly of opinion that post-nasal growths are the cause of all the deafness met with, and that the number of persons who suffer from deafness contracted entirely in adult life is relatively small. It seems that many people do not recognize deafness until the hearing is reduced to one-tenth of the normal, and it frequently takes the period of time elapsing between the appearance of these growths and puberty to reduce the hearing permanently to that point. Thus it is that patients frequently do not seek advice until the acute inflammation has passed and sclerosis is well advanced. The hearing continues slowly to deteriorate, and at twenty-five years of age the deafness is pronounced. By this time probably no trace of the growth remains except the post-nasal catarrh. For there seem to be good grounds for suspicion that persistent post-nasal catarrh in adult life is the consequence of post-nasal growths in early life. The exact cause of the middle ear inflammation is not quite obvious. It would appear to be an extension of the chronic inflammation that accompanies the post-nasal hypertrophy along the Eustachian tube. The rapid and startling improvement which sometimes follows removal forces us to hesitate before accepting such an explanation absolutely. It might be that in these cases the element of Eustachian obstruction was more prominent than usual, but of this we have found no objective evidence.

General Symptoms.—As to the causal relationship of a number of general symptoms to the existence of post-nasal growths, there is no doubt the chief symptoms are those depending upon imperfect nasal respiration. In spite of the nasal obstruction produced by the growths there seems to be no doubt that patients always endeavour to breathe through the nose, probably in accord with ancestral nervous habits, and it is in very few cases that one finds absolute nasal obstruction, even where buccal respiration is most pronounced. The strain put on the thoracic muscles by the effort to draw air through the narrowed nose may account for much of the exhaustion and for the physical thoracic symptoms. It is to us quite inconceivable that in total buccal breathing there can be much strain on the respiratory muscles. The strain must result from continued attempts to restore

nasal respiration. The buccal respiration, however, accounts for the bronchitis and for the laryngeal troubles to which these children are subject. In several cases we have seen a marked liability to laryngeal catarrh diminished in a great degree by their removal. The respiratory trouble, the deformity of the chest, the bronchitis (possibly the arching of the palate), the general debility, and anaemia seemed to be readily explained in this way. There seems good reason for believing that mouth-breathers do not aerate their blood efficiently. During eating or speaking they are always in difficulty, but even during sleep they do not get on comfortably. Children turn uneasily on the pillow, become restless, and finally wake up in a condition of mild delirium. The probable explanation of this disturbed sleep would seem to be the inevitable tendency of the respiratory centre to induce nasal breathing in accordance with ancestral habit. Consequent imperfect aeration, deficient oxygenation of the centre, of the nervous system in general, then a mild convulsion, to be re-followed by mouth-breathing, and a fresh cycle. The symptoms enumerated—interference with speech, deglutition, aeration, and the respiratory movements, coupled with the disturbance of sleep—seem to us sufficient to account for all the general symptoms produced by post-nasal growths. Children suffering from these growths have frequently what is called a strumous appearance. They further frequently possess enlarged cervical glands, but we have not met with one case in which the gross lesions of struma have coexisted with them.

In the Guy's Hospital reports for 1881 there appears a paper by Francis Galton and F. A. Mahomed, entitled "An Inquiry into the Physiognomy of Phthisis by the method of composite portraiture." With the paper are exhibited a large number of portraits of faces of different types, grouped according to their obvious affinities. Figure 47 and its components are placed here together as exhibiting strumous features. *All have the open mouth*, a short upper lip, and a broad nose, with more or less depressed bridge, yet the outlines of the face are narrow rather than broad. The authors mean to say that these five faces and the composite would be pronounced by everyone as strumous, yet they lack the broad outline to the face which has been stated to be one of the characteristics of a strumous frame, as the ovoid outline is stated to be of the tubercular frame. The authors conclude that there is no special type of face associated with phthisis.

And our contention is that the so-called strumous features are frequently the result of nasal obstruction.

Conclusion.—We may sum up by stating that in Australia this enlargement of the adenoid tissue of the naso-pharynx is the chief cause of aural disease at all ages—a disease which is very common, and which is probably as amenable to treatment, and with as little danger, as any serious ailment that can be mentioned. With the early recognition and treatment which will follow diffused knowledge, we may confidently look to the marked diminution of cases of serious deafness in adult life, and we may further look for the production of more sturdy individuals.

POST-NASAL GROWTHS. (Drs. Barrett and Webster.)

Sex.	Age.	Ear disease.	Duration.	Oral, nasal, and other symptoms.	General health.	Features.	Palate.	Membranes.	Hearing.	Operation.	Result.
M.	5 years	C.S.C.M.E. R. and L.	4 years	Snores. Oral respiration. Strumous looking. Enlarged tonsils.	III-nourished; anemic. Strumous looking. Enlarged glands.	Arched.....	Perforated.....	Very deaf..	25/1/92	14/3/92.—R. 21; L. 18. Much brighter and healthier. $\frac{20}{5}$ in. —R. 25 in.; L. 25 in. Not snore. Nasal respiration.	
F.	10	C.C.M.E. R. and L.	4 years	Snores. Oral respiration. Dead voice. Rhinitis.	III-nourished. Dull, awkward, floppy. Thick, eczematous skin. Strumous.	Not arched.....	Catarhal and R. 2 in. L. 4 in. depressed.	20/1/92	19/3/92.—Heating much improved. Healthy, bright look, with supple, healthy skin. Lost to a large extent the strumous look.		
F.	3	C.S.C.M.E. & C.C.M.E.	1 year	Breathing heavy. Large tonsils.	Ill-nourished. A strumous look.	Thick.....	High, arched, and broad.	Partially destroyed.	21/1/92	Much improved for a time. Recurred and removed. 23/6/92. Memb. heated. Very slightly deaf. Lost strumous look, and gained a fresh, healthy complexion.	
M.	13	C.C.M.E., R.	.....	Large tonsils	Healthy and strong ..	Gross, strumous.....	Normal.....	(?) Normal ..	22/1/92	4/4/92.—H = n, R, and L.	
M.	8	C.C.M.E., R. and L.	5 months	Pharyngitis, catarrh. Nasal obstruction. Tonsillitis. Enlarged cervical glands.	Strumous, but vigorous. Subject to colds.	Normal.....	Catarhal and R. 2 in. L. 36 in. depressed.	R. 25 in. L. n.	5/2/92	20/5/92.—H. n. R. and L. General health and aspect much improved.	
F.	6	C.C.M.E.	.....	Not noticed to be deaf, but ear-ache 5 weeks. Large tonsils.	III-nourished and floppy. Constantly having colds.	.....	High and broad. Red. Ac. Cat. R. 39 in. M.E., L. 35 in.	5/2/92	20/5/92.—Mls. depressed; red. Fresh attack of Sub. Ac.C.M.P. H. nearly normal.		
F.	16	C.C.M.E.	.....	Chr. Rhinitis. L. nostril obstructed.	.....	Normal. Broad and low.	Depressed and scarred	R. 5 in. L. 1 in.	....	20/7/92.—R. 14 in.; L. 1 in. Memb. depressed.	
F.	5	C.C.M.E.	12 months	Far-ache and deaf. Snores, and sleeps badly. Enlarged tonsils.	Pale, delicate, refined, intelligent. Constantly having colds.	.....	Red, depressed, scarred.	R. to in. L. 5 in.	9/3/92	8/8/92.—Not noticed to be deaf. Much brighter, sleeps better, does not snore, appetite improved, and not as subject to colds.	
F.	6	C.C.M.E.	18 months	Nasal obstruction. Open mouth. Snoring. Large.	Delicate. Enlarged cervical glands. Tonsils.	Stupid expression, mouth open, and nose pinched.	High, but broad. Red and sunken.	R. 4 in. L. 4 in.	21/3/92	18/8/92.—R. 10 in.; L. 10 in. Kidneys gone. Better health. Not stultified up. More free. Lost stupid look.	

* Chronic suppulsive catarrh middle ear.

+ Chronic catarrh middle ear.

POST-NASAL GROWTHS—continued. (Mrs. Bennett and Webster.)

Sex.	Age.	Eardisease.	Duration.	Oral, nasal, and other symptoms.	General health.	Features.	Palate.	Menstrues.	Hearing.	Operation.	Result.
F.	15	C.C.M.F., R. and L.	18 months	Ch. H. Rhinitis, Snores, Dead voice.	Lacks vitality; pale ..	Vacant expression; mouth open.	Depressed and opaque.	R. 8 in. L. 5 in.	23 2/92	Immediate benefit. 22 6/22.—R. 1/2 in. L. 16 in. Snores still. Rhinitis the same. Brighter and better in health. Head feels clearer.
M.	5	C.C.M.F., R. and L.	12 months	Snores .....	.....	.....	Red and sunl. R. 15 in. in a little. L. 12 in.	.....	28 3/92	Second operation. Much improved in health. Parents do not notice any deafness.
F.	7	Sub.Ac., C.M.E., R. and L.	1 month.	Ear-ache and restlessness. Nose free.	Delicate .....	.....	.....	Sunken and Contact R. and L.	5 4 1/2	26 4/92.—R. 1/2 in. L. 20 in. Redness gone. Fresh Ac. C.M.E. R. H. 20 in. L. 36 in.
M.	15	C.S.C.N. I., R.	Many years.	Chr. Hyp. Rhinitis, Pains in forehead, Great hypertrophy of tonsils, Inf. Turbinates. Oral respiration.	Anemic, looking dull, heavy look.	Sinusous	High and arched R. destroyed. L. depressed.	R. 5 in. L. 60 in.	36 5/92	6 6/92.—R. 1/2 in. L. 80 in. R. menh. healing. General health greatly improved. Brighter, more active, and robust. Ch. Rhin. and pain in head better. Does not snore. Cough and Rhinitis better. Tonsils removed.	
F.	10	Sub.Ac., C.M.E.	3 years.	Subject to colds, Chr. Rhinitis, Enlarged tonsils, Tinea Tarsi.	Sinusous, Throat cough, Subject to colds, Chr. Rhinitis, Enlarged tonsils, Tinea Tarsi.	Aspect, lively, enlarged cervical glands.	Long, oval tips.	High, arched, thick and narrow.	17 6/92	22 7/92.—H. n. Membr. n. Does not snore. Brighter since still snores, and is restless.
M.	6	Sub.Ac., C.M.E.	Pain ; weeks.	Large tonsils.	Broad nose, thick ala.	High and arched.	Depressed and R. 3/9 in. red, L. 6 in.	.....	6.7 9/2	8 8/92.—H. n. Does not snore. Lost snuffing. More lively. Sleeps better. Red membs. gone.
M.	9	C.C.M.F.	3 years.	Larache, Snores, Chr. Rhinitis, Enlarged tonsils.	Delicate sine whooping cough, when symptoms began.	High, arched, and narrow.	Sunken and red.	.....	25 7/92	8 9/92.—R. 14 in. L. contact, Brighter since, still snores. Better health. Membranes a little sunken.
M.	10	C.C.M.F.	9 months.	Snores, Oral breathing, Endangered tonsils.	Looks strong and healthy. Cervical glands enlarged.	Narrow and arched.	.....	R. contact L. n. (C)	25/7'92	8 9/92.—R. 14 in. L. contact, Great improvement. Does not snore. Better health. Membranes a little sunken.
F.	6	C.C.M.E.	12 months	Snores, Nasal obstruction, Enlarged tonsils.	Well formed, Enlarged cervical glands.	High and narrow.	Sunken and R. 8 in. L. 4 in.	6.5 9/2	8 6/92.—R. 40 in. L. 25 in. Membr. not red. Does not snore. Breathes through nose.		
F.	14	C.C.M.E., L.	Some years	Chr. Rhinitis. Always having colds. Snores.	In good health, but feels heavy about head. Not strumous.	Well formed.	High and broad.	L. sunken a little.	19.8/92	10 7/92.—H. n. Does not snore. Feels lighter in head. Describes the change as wonderful.	

Notes on Adenoid Vegetations in the Naso-Pharynx, with special reference to the forms of deafness connected with their presence. By Dr. JOHN LOCKHART GIBSON, Brisbane.

Adenoid vegetations are somewhat common in Queensland, and as advantage has been taken of my opportunities of studying a considerable number of cases, I have thought that good and knowledge may be gained by introducing them as a subject for discussion here. There appears to me to exist some undecidedness regarding the manner in which these growths produce ear symptoms, and upon this point I shall try to throw some light. They have been thought to be on the increase, partly because comparatively few of the cases of deafness met with in persons of adult, or still more of middle age, are ascribed to them or to their previous existence; and partly also, no doubt, because their frequency and importance has not been fully grasped until of late years, and is perhaps barely so now. That comparatively few of the cases of deafness in after-life have been ascribed to these growths seems to me to depend upon an at least possible fallacy. Many of the cases of chronic middle-ear catarrh met with in adults may have had their origin from them; and, indeed, deafness in adults as the result of former attacks of acute middle-ear catarrh may have had the same primary cause. The fact that adenoid vegetations in a certain proportion of cases shrink and even disappear with adult life lends support to this. Deafness, often very intractable, may be the legacy they leave; and the cases of deafness in adults where signs of sclerotic changes in the internal ear are present could depend indirectly upon the same cause. All of us who have paid special attention to diseases of the ear must frequently see cases in whom the changes are so marked in the middle ear as to leave no doubt that the affection commenced there, while, from further examination, just as little doubt remains that the internal ear has become affected, and probably by continuity. In this connection it may be interesting to record a fact noted over and over again by myself, viz., that when consulted for naso-pharyngeal and pharyngeal trouble by adults, I have frequently observed traces of adenoid vegetations on the naso-pharyngeal roof, and upon examining the ears in all such cases, even where no deafness has been complained of, distinct alterations have been observed in the drum membrane while hearing has been found to be below normal.

The effect of these growths. — It will be unnecessary to dwell upon the characteristic appearance, peculiar breathing, and tendency to "colds" to which they give rise; these are pretty well recognized. I should like, did the limits of this paper permit me, to say more regarding their influence upon the general health, and the remarkably beneficial effect upon this of their removal, in almost every case. So convinced have I become of their injurious effect upon the health of a child, and that at an age when all obstacles to healthy development and growth should be removed, that I always when possible examine for them in the cases of children who are chronically pale and sallow, badly nourished, and deficiently developed, or narrow-chested. And if a child from being plump and rosy during the first few years of life begins to fall off in general health and appearance without any perceptible cause, and sometimes even without sufficiently heavy breathing to attract its parents' attention, adenoid vegetations should be suspected. I shall never forget the pleasant impression left upon me by a lad of seventeen, from whose naso-pharynx I had removed numerous vegetations more than three years previously. They had then caused extreme deafness, which was, in part at least, recovered from after operation. At fourteen he was an unhealthy-looking, stunted boy, in addition to being stupid from his deafness, and gave no indication of future growth. When he called to see me at the age of seventeen I had a difficulty in

believing him to be the same. He had developed into a strong, broad-shouldered, and fairly tall young man. He consulted me again on account of a recurrence of his deafness, due, I found, to a partial return of the adenoids. This I ascribed to imperfect removal, for at the time, although I used my present nail for operating, I had not adopted the position of hanging head, and therefore did not give chloroform on account of danger from bleeding. The operation was therefore too painful in spite of cocaine to be very thorough. Complete removal at the age of seventeen, and a few weeks' subsequent treatment, restored his hearing to natural, and he now exists as a young man of nineteen years, not only with perfect hearing, but with health and physique which would, I believe, never have been his had the vegetations been in the first instance left.

Since adopting the position of hanging head for removal of adenoid vegetations under chloroform, I have been able to operate upon them with such little feeling of anxiety, and with the nail I used so thoroughly, that I have practised it very frequently, and paid special attention to my cases before and after operation.¹ During the last two years I have operated upon some sixty cases of all ages from seven months up to twenty years. I have learned also from cases who refused operation, and also from some adults in whom the vegetations were not too numerous to admit of their being removed under cocaine, with the aid of the rhinoscopic mirror and by Löwenberg's forceps; and I have come to recognize at least four methods by which they produce deafness, viz.—(1) by Eustachian blocking, either indirect or direct; (2) by recurrent acute perforating middle-ear catarrh; (3) by recurrent sub-acute middle-ear catarrh; (4) by chronic middle-ear catarrh.

1st. *Eustachian blocking.* They cause this most frequently indirectly by causing swelling of the lining of the Eustachian tubes and orifices. This swelling is probably due to venous obstruction, and is usually of a passive nature, as it can be overcome by politzerization or catheterization with temporary alteration of the position of the membrana tympani and equally temporary improvement in hearing. They occasionally block the orifices directly; more frequently they entirely prevent ordinary nasal breathing, and so prevent the ingoing and outgoing current of air past the orifices, which has almost the same effect as blocking them. I would draw special attention to their indirect effect in causing swelling of the lining of the tubes, as this cause of deafness by them is not sufficiently appreciated. It may be caused by comparatively few vegetations, and by them without any evident sign of nasal obstruction. It seems fair to ascribe their action to venous obstruction rather than to active hyperæmia, though no doubt this may be and is also a cause. It will be readily granted that very slight swelling of the lining of a tube of such calibre is sufficient to interfere with its patency. The method by which they cause Eustachian blocking can, I think, be explained, as I shall endeavour to do further on in this paper. The appearance of the membrana tympani is so typical in these cases that I occasionally make use of it as a diagnostic sign in children who are brought to me suffering from the throat or nose, and in whom deafness may not have been noticed by their parents. Children, indeed, may possess to test only half, or even a quarter, of natural hearing, without their parents recognizing, or even admitting them to be dull of hearing. Many children allow a post-rhinoscopic examination very well, but in those who will not allow a thorough one I have diagnosed vegetations as a result of an imperfect examination, together with this appearance of the membrana tympani, occasionally by the appearance of the membrane alone. I am very strongly adverse to frightening nervous children by introduction of a finger into the naso-pharynx, unless this be

¹ This operation was described by me in the *Australasian Medical Gazette*, 1890.

absolutely necessary, and prefer, in such cases, to diagnose as above and put them under chloroform preparatory to operating. When so diagnosed, I have never failed to find vegetations at the operation. This appearance of the membrana tympani is simply that of an indrawn membrane with marked posterior fold and fore-shortened handle of hammer. Often such a membrane is more than naturally injected. These cases, if deaf, can always have their hearing temporarily improved by inflation, and their hearing rapidly improves after operation and keeps well. The membrane also soon assumes a better or a natural position.

2nd. They induce recurrent attacks of acute perforating middle-ear catarrh. And next to their first method of causing deafness, just described, this second form is most favourable from a prognostic point of view. It is very common. The prognosis is fairly favourable owing to the fact that the membrana tympani of children ruptures so easily as the result of acute inflammatory exudation into the middle ear, and to the additional fact that the inflammatory contents of the middle ear usually escape in them through a small perforation; also, because a perforation when once so made reopens, as a rule, easily during subsequent attacks and often almost painlessly. No doubt each such attack makes the hearing less likely to afterwards return to natural, and as the result of many such we often have adhesions formed. Still it is remarkable how often the hearing, by appropriate treatment, after removal of the vegetations can be brought to normal, and how it remains there, sometimes no doubt leaving permanent and decided changes in the appearance of the membrane. An indrawn membrane with posterior fold is usually present in these cases. These attacks of recurrent acute inflammation are no doubt induced by Eustachian blocking as described above. In other words, the middle ear is placed in an unnatural condition, and is therefore predisposed to inflammatory attacks. They may be caused also by the passage upwards of catarrh from the naso-pharynx without necessarily a chronic state of Eustachian blocking. Often children exhibit in one ear the features described under the first head, and in the other the signs of acute middle-ear catarrh.

3rd. By inducing recurrent subacute middle-ear catarrh. I have thought it best to describe this form separately, because my own experience has taught me to separate it from both acute and chronic catarrh, partly for prognostic reasons. These cases can, as a rule, be easily recognized from the appearance of the membrana tympani. It is thickened, opaque, and often altered in colour, being either pink or flesh-coloured, and at parts yellow.² The yellow appearance is generally confined to the post-segment, and is either due to deposit in the membrane or to deposit in the middle ear. The membrane as a whole is more concave than natural, often almost cup-shaped, though often concave in its anterior half, and much narrowed in its posterior half, with the handle of the hammer directed backwards and often in a line with a pronounced anterior fold, but these cases, as a rule, show no posterior fold. The light cone is altered or absent. An appearance in these cases, which is very characteristic, is the distinctness of the tympanic ring at its inferior, and often also its posterior margins. The inferior margin of the membrana tympani presents, owing to this, a curious opalescent crescent. This appearance seems to me, from examination of living specimens only, to be due to the margins of the membrane being pulled inwards and attached more or less closely to the inferior and posterior walls of the tympanic cavity, by organized exudation which has collected in the angle of junction of the membrane and these walls. It is this, I believe, that gives the membrane its peculiar deep cup-shaped appearance, and that causes so distinct a narrowing of the distance between the posterior margin of the membrane and the handle of the hammer,

² The discolouration indicates, as a rule, a recent attack.

together with absence of a posterior fold. The prognosis, even after removal of the adenoids, requires to be very guarded. These cases seldom or never improve without prolonged subsequent treatment, and sometimes resist all ordinary treatment, though bone conduction remains excellent. They are serious, I believe, because the catarrh has in the first instance not been sufficiently acute to lead to rupture of the membrane. The exudation has not found outlet, has been in part organized around and upon the chain of ossicles, and has caused clogging of their joints; but in addition to this clogging of the chain of ossicles, the exudation which has become organized, as I believe, at the angles of junction of the membrane and the tympanic wall, has a most serious effect upon the conducting mechanism for sound. Each successive attack has added to this clogging, and has in addition caused thickening of the membrane. If acute catarrh becomes superadded, great and often prolonged ear-ache results before the thickened membrana tympani ruptures, and it is in cases like this that one gets an opportunity of puncturing the membranes of children; for, as said before, a previously healthy membrane bursts so readily in them that an opportunity seldom occurs for paracentesis. I have come to think that in obstinate cases of this nature the best thing that can happen to the child is an attack of acute catarrh treated by paracentesis, as the acute inflammation causes absorption of some of the inflammatory products, and if the exudation is given exit sufficiently early, it has not had time to increase the damage already done. Attacks of recurrent subacute catarrh, due to adenoid vegetations, can be explained in the same way as attacks of acute catarrh: they are sometimes unilateral.

4th. *They induce chronic middle-ear catarrh.* This is not uncommon, and although the prognosis of this form requires to be guarded, it is on the whole less unfavourable than for cases of subacute catarrh. It may almost indeed be said that given a case of chronic middle-ear catarrh associated with adenoids, and in patients below the age of sixteen or seventeen the prognosis is favourable; after that age more doubtful. The deafness is, as a rule, bilateral. The appearance of the membrana tympani is distinctive. It is indrawn less than in cases of simple Eustachian blocking, it is whitish-grey in colour and opaque, and the light cone is altered or absent. The posterior segment is often narrowed, and a posterior fold is not so constant as in cases described under the first head, though one prefers to see it. There will be little or no improvement as the immediate result of the removal of the adenoids, but politzerization or catheterization persisted in for weeks and perhaps months is, as a rule, productive of much good, and has often in my hands restored natural hearing. The vegetations evidently cause this form of deafness, by placing the mid-ear in unfavourable circumstances, and also, no doubt, by keeping up constant slight naso-pharyngeal irritation and, by continuity, chronic Eustachian and mid-ear irritation. It seems to me that the Eustachian tubes remain somewhat more patent in these cases than in other forms, and as a result a better continuity is established, and chronic changes occur in the middle ear without the membrane being markedly indrawn. The history of these cases is, in fact, that of simple middle-ear catarrh, except that the adenoid vegetations have to be removed to begin with, as being the initial cause.

No hard and fast line can be drawn between these four varieties of ear trouble associated with adenoids. Mixtures of them of course occur, but to divide them thus simplifies to my mind our work, and is therefore of advantage. [The author gives short notes of three cases supporting the opinion formed, regarding the way in which adenoid vegetations most commonly cause deafness by simple Eustachian blocking.]

From these and similar cases I have thought it probable that adenoid vegeta-

tions are more likely to produce ear symptoms when they lie in close contact with the pharyngeal surfaces of the tubes, and that they do this by obstructing the return of blood by the venous radicles of the pharyngeal plexus, and so by causing passive congestion of the Eustachian tubes. And small vegetations, especially if of dense consistence, stretching across the pharyngeal roof and coming on each side in close contact with the pharyngeal surfaces of the tubes, cause, in my experience, ear symptoms much more constantly than much larger and softer vegetations, which, on account of their distribution and consistence, press less firmly upon the tubes. But, nevertheless, the kind of deafness caused by this close contact of the vegetations with the tubes is generally of the varieties 1 or 2 described above, sometimes, though fortunately not frequently, of the third variety, and therefore, as a rule, yields pretty readily to treatment. But I have come to believe that chronic middle-ear catarrh is often associated with adenoids which do not cause so much Eustachian obstruction, and which, therefore, probably cause deafness by the spreading of catarrh from the naso-pharynx to the middle ear up somewhat patent tubes.

Hypertrophy of the Lingual Tonsil. By T. K. HAMILTON (Adelaide).

Hypertrophy of the lingual tonsil is now recognized as a distinct pathological condition, producing symptoms which are, for the most part, tolerably definite and pronounced, and which can always be effectually relieved by appropriate treatment.

The term "lingual tonsil" is applied to the collection of lymphoid tissue found in the epiglottidean fossa, which occupies the posterior third of the base of the tongue. This space is bounded in front by a line—the "sulcus terminalis"—which, for all practical purposes, corresponds with the V-shaped line of the circumvallate papillæ, the latter standing out, as Wingrave remarks, like a series of martello towers guarding a region sacred to the laryngologist. This sulcus may not always be visible, but the papillæ are, unless destroyed by disease. The histology of these lingual tonsils has quite recently been invested with some considerable interest, since Wingrave demonstrated only a few months ago that, though they are clusters of lymphoid tissue, they contain crypts or lacunæ, lined with well-defined columnar ciliated epithelium.² This is a most interesting discovery, as ciliated crypts have never been previously noticed; they are not found in the faucial tonsils, and they evidently illustrate, as Dundas Grant points out, the persistence of a foetal condition. I have, however, up to the present, failed to discover any of these ciliated lacunæ in sections made for me. Solis-Cohen objects to the term "tonsil" being applied to these lymphoid bodies, and thinks it should not be used for any save the faucial tonsils proper; but, nevertheless, most writers now use the expression, and apply the word "tonsil" indiscriminately to the lymphoid collections found on the tongue, in the naso-pharynx, and to the faucial tonsils alike.

Next, let us consider the pathological conditions peculiar to hypertrophy of the lingual tonsil. On examination, the growths on the tongue are found overlapping the epiglottis, more or less, and thus rubbing against its sensitive laryngeal surface. This is what is described by Solis-Cohen as "imprisonment of the epiglottis." When the growths are sufficiently large so as to overlap the interior of the epiglottis to any considerable extent, and thus to rub against this extremely easily-irritated area, then the symptoms commence—coughing is provoked by the irritation, in fact, a struggle between the two parts involved begins, and thus by-and-by the coughing itself acts as an irritant, which in turn intensifies the

² JOURNAL OF LARYNGOLOGY, May, 1892, p. 213.

original trouble, and the "vicious circle" is thereby completed. In this connection it may be mentioned that the epiglottis is sometimes asymmetrical, and this is shown by Rice, of New York, to be a predisposing cause to its entanglement by the lingual growths. He has pointed out that one angle or one half of the summit of the cartilage may be prolonged beyond the level of the other, the prolongation sometimes ending in a well-curved border and sometimes extending to a point.⁴ The commencement of the asymmetry is congenital, and no discomfort ensues until the elongated portion begins to come in contact with the neighbouring tissues on the tongue; then, by constant contact and friction, the enlargement of the epiglottis becomes actually greater, through chronic inflammatory thickening, and, here again, another "vicious circle" is completed. I have found the epiglottis asymmetrical in a fairly large proportion of my cases. Lastly, varix of the vessels at the base of the tongue is often found to coexist with hypertrophy of the lymphoid tissue, the two constituting the condition designated by Lennox Browne "throat piles."

The Etiology.—The etiological factors in the production of this overgrowth of the lymphoid tissue at the base of the tongue are, according to Lennox Browne, identical with those leading to enlargement of the faecal and pharyngeal lymphoid glandular masses, viz., the contamination of the buccal fluids by micro-organisms and their irritating chemical products, the result of their life processes, in association with rheumatic or other diatheses. This extract briefly sums up my own experiences. I have found both indigestion and rheumatism, either separately or together, to be the commonest accompaniments of this abnormal condition of the tongue. In quite a large number of my cases I have discovered rheumatism developed, or an inherited tendency thereto, and also the uric acid diathesis was found to coexist. Then, as an outcome of these diathetic vices, or independent of them, indigestion in various forms is complained of. Again, some authorities, as Curtis and Lennox Browne, regard improper use of the voice as a local cause of the trouble. It is not by any means uncommon among singers, because they not unfrequently either adopt a wrong vocal method in their singing, or sing when their voices are not fit to be used.

As to age.—Hypertrophy of the lingual tonsil is rare in children, but common in young adult life, when other lymphoid developments, such as the pharyngeal tonsil, begin to undergo spontaneous degeneration. Amongst my cases the youngest is nineteen years, and nearly fifty per cent. of them range between this age and thirty years. The oldest subject I have had is seventy-two years, but only comparatively few seem to be found much over fifty-five years.

Next as to sex.—Females are undoubtedly more liable than males. Out of my ninety cases, I find nearly two-thirds are women, and in them the condition is often associated with menstrual irregularity. For instance, menorrhagia, this more especially when varix of the tongue exists, and the symptoms then are usually aggravated at the menopause. Lennox Browne thinks the reason why females are more liable is because in them the vaso-motor system is generally more debilitated than in the male sex.

The symptoms are nearly all subjective and pretty constant. They are as follows: Irritation of the upper part of the pharynx, variously described as a pricking sensation, or that of a hair, crumb, or fish-bone in the throat. This is accompanied by a feeling of tightness and fulness, which sometimes extends upwards towards the ears, and usually gets worse towards evening. Lennox Browne uses the term "pharyngeal tenesmus," and applies it to those cases in which there is this feeling of tightness, accompanied by a continual inclination to

⁴ "New York Med. Record," May, 1886, p. 493.

swallow some imaginary foreign body, producing more or less cough, straining, and pain. These symptoms have not, up to lately, been acknowledged to have other than a neurotic basis, they have been all grouped under the familiar "globus hystericus" group, while all the time a real objective cause—hypertrophy of the lingual tonsil—existed to produce, or, at any rate, to aggravate them ; and from my own personal experience I can affirm that symptoms of this kind are frequently put down to the groundless fears of an imaginative or hysterical hypochondriac, and treatment refused or neglected, which, if adopted, would have removed them all, and cured the individual. *Œsophagismus* may also be mentioned in this connection as having occurred and been found to depend upon similar causes. Cough, often very troublesome and irritating, or what is known as a "useless cough." In two of my cases the cough was the prominent symptom, and resembled, as far as I can tell from reading the description of it, the "barking cough of puberty," described by Sir Andrew Clark.⁵ The voice is easily tired when any continuous effort is made ; after talking a short time it gives way and hoarseness comes on. But it is in singing that this symptom is usually most marked. After the patient has been singing for a few minutes he begins to feel his voice crack on a certain note or notes, and he cannot, without great effort, get these notes out ; even then the effect is far from what it ought to be, and he is supposed to be suffering from a bad cold, &c. This unusual effort, and the straining which it induces, still further increase his trouble each time he sings, so that soon a chronic pharyngeal and laryngeal catarrh is set up, and then the *timbre* of the voice, which depends so much for its quality upon the health of the throat, becomes seriously impaired. Here the faulty position of the epiglottis also comes in ; limitation of its movements must cause some perceptible defect in the singing, because the epiglottis plays such an important part in the formation and modification of the voice, and it—the epiglottis—takes different positions during vocalization in changes of pitch, quality, and intensity.

From observations I have been able to make, I think it is usually on notes in the higher register that the voice gives way. The position of the epiglottis during the formation of these notes might serve to account for this. Soprano voices in women, and tenor in men, seem to be oftenest affected. I have had lately two prominent tenors under treatment, whose singing was sadly impaired by imprisonment of the epiglottis, or some such cause, connected with enlarged lingual tonsils, and they are now quite restored to their usual form by removal of the growths. Amongst some occasional symptoms met with, hemorrhage from the throat may be mentioned, either spontaneous or induced by application of the brush, and when spontaneous it may be mistaken for pulmonary haemoptysis. Lennox Browne has found that taste of blood in the mouth on awakening from sleep is often complained of, and a common symptom of varix at the back of the tongue, depending on actual venous leakage.

One word as to diagnosis. Having the symptoms as just enumerated prominently before your mind, and having, by a process of elimination, excluded irritation of other sensitive areas in the neighbourhood as a cause, it only remains to prove that the back of the tongue and the epiglottis are the seat of the trouble by touching the parts with a probe ; the patient will then recognize the location as identical with that of the seat of the irritation, and the same cough will be produced. The application of cocaine, by removing the tickling, will still further help the diagnosis.

Lastly, the Treatment.—First: Constitutional.—It is of primary importance to recognize and treat the underlying constitutional and exciting functional and

⁵ "Brit. Med. Journ.," Dec., 1850.

other causes. If rheumatic symptoms are present they ought to be treated. Tenderness on pressure over one or both thyro-hyoïd ligaments can frequently be elicited in examining these cases, and this, while serving to show the connection between the general and local rheumatic condition, points more decidedly than ever to anti-rheumatic remedies as a necessary part of the treatment. Of these remedies I have found salol to suit best when the throat is involved. Bartholow says, "The effects of salicylic acid are increased in all directions by members of the phenol group."⁶ This probably explains why 90 grains of salol will do more work in rheumatism than the 50 grains of salicylic acid it contains. Gougenheim recommends salol in doses of not less than 4 grammes (60 grains) daily.

Second: Local Treatment.—There are various methods recommended for removing the growths: some use cutting instruments, curettes, guillotines, etc., and others the galvano-cautery. I have had a sharp curette made (*exhibited*) with which I have sliced off the larger growths, but I usually use the galvano-cautery—it is the most convenient to apply, and gives the most satisfactory results. In applying the cautery, it is necessary to guard against touching the epiglottis with the point, as an eschar on its border causes a very troublesome and irritating sore for some time, accompanied sometimes by considerable swelling of the cartilage, dysphagia, etc. In order to avoid this unpleasant complication, it is advisable to have the parts thoroughly cocainized, to have the tongue well pulled out and held out, and to make the application as quickly as possible, so that the patient may not be tempted to swallow, which he should be instructed to avoid doing during the time the point is in contact with the tongue. The point is applied at a good white heat to the centre of each of the larger growths in succession; an indentation is thereby made into the growth, which, when healed up and drawn together, reduces its size considerably. A second and even a third application may be necessary, or in some cases the first cauterization may be followed, up after the end of a few weeks, by daily application of Mandl's or some similar solution.

In conclusion, I would just mention the importance of special and proper training of the voice, not only as a preventive, but as a curative agent. All singers who suffer in this way should be placed under the supervision of teachers who know how to make them use their voices in the best way, and with the minimum amount of strain on their throats.

DISCUSSION ON ADENOID VEGETATIONS.

After the reading of the foregoing papers on the subject, the following discussion on adenoid vegetations in the naso-pharynx took place.

Dr. JAMES W. BARRETT (Melbourne), Vice-President, occupied the chair.

Dr. T. K. HAMILTON (Adelaide, South Australia) said that adenoids are very common in South Australia. He did not believe that a damp climate is necessary to their development. He had seen as many cases from the dry regions of the interior as from coastal localities. A disease so extensively prevalent in Europe and Australia must owe its cause to other than climatic causes. He believed that a depressed condition of the general health is a cause. He has a theory that the naso-pharynx, being intimately connected with the digestive tract, is influenced by conditions of the latter. The injudicious feeding of children which takes place in Australia may thus account for the enormous number of cases seen in this country, where the climate ought to be unfavourable to their growth. He believed struma to have no connection with the disease. The youngest child on which he had operated was aged ten months. In children of such tender years he hesitated to introduce the finger alongside the instrument with which he removes the growth,

⁶ "Therap. Monatsschrift," 1887, p. 51.

as, on account of the narrowness of the space, he thinks it possible to inflict injury—possibly to fracture the hamular process. His experience as to the recovery of normal hearing in most cases operated on before thirteen years of age has not been so favourable as that of Dr. Lockhart Gibson. Speaking of the question "When is it necessary to operate?" he said that he followed the maxim of Stoker, "if there is any interference with any physiological function—be it ever so little—operate." He always operates under anaesthesia, using the A.C.E. mixture. Patient on back with hanging head, which not alone prevents blood entering air-passages, but renders anaesthesia safer by allowing air to more freely enter the glottis. He uses Woakes' modification of Löwenberg's forceps. He entirely disagrees with Dr. Gibson's opinion that the curette is a dangerous instrument. Gottstein's curette is quite safe when skilfully used. He does not think that adenoids grow in Rosenmüller's groove. Believes deafness to be caused rather by paresis of tubal muscles and lymph stasis than by mechanical obstruction. If politzerization gives distinct improvement of hearing before operation, the prognosis is favourable. As a diagnostic sign, if the soft palate is fixed "juicy" adenoids are almost certainly present. The rhinoscopic mirror is the best means of diagnosis in a very large proportion of cases. He thinks it would be well if all deaf-mutes in asylums were systematically examined for post-nasal growths. He has never seen a fatal issue or serious symptoms follow the operation. He has only once seen acute middle-ear catarrh as a result. He is careful to have all instruments aseptic, and uses cotton wadding swabs—not sponges.

Dr. HOZIER (Sydney) mentioned thickening of the faucial pillars, and the impossibility of sending a spray of liquid vaseline into one nostril and out of the other, as additional symptoms of the presence of adenoids. He thought Dr. Gibson's steel nail would interfere with the sense of touch. He said it would be interesting to determine if adenoids and Tornwaldt's disease, which at present is much spoken of in Germany, were the same disease at different periods of life. In operating, uses Löwenberg's forceps and Gottstein's curette. Finds the growths very common. Has never seen serious symptoms follow the operation for their removal.

Dr. KENNY (Melbourne) said aprosexia exists in a large proportion of cases. He prefers digital examinations to the mirror as a means of diagnosis. Invariably operates under chloroform with hanging head. He finds that he cannot remove the growths sufficiently thoroughly without general anaesthesia, and that they consequently return. The hanging-head position is the most convenient for the surgeon. He has complete anaesthesia produced, keeps mouth open with Ferguson's gag, uses Woakes' modification of Löwenberg's forceps to remove growths. Completes removal with Gottstein's or Hartmann's curette. Believes this curette is always perfectly safe with those who know the anatomy of the space. He finds the finger-nail answers the purpose of removing the growths which Dr. Barrett removes with small curette through anterior nares. He uses subsequent douching with antiseptic solutions, and keeps patient in bed two or three days. Finds acute middle-ear inflammation a frequent sequel of the operation. At the Golden Square Hospital, where politzerization was commenced soon after the operation, this complication was very frequent. He uses sponges, but is careful to keep them aseptic. Finds the disease most common in coastal districts. Except middle-ear inflammation, he has never seen any evil effect follow operation.

Dr. NIHILL (Melbourne) saw a case of adenoids in a child aged six months. Child could not take the breast from inability to breathe through nose; after operation this symptom disappeared. As symptoms of the disease, he mentioned the trickling of mucus down the post-pharyngeal wall, and reflex cough. He

operates under chloroform, administered to full anaesthesia, in hanging-head position, using Woakes' forceps. Although he has never seen antisepsis thoroughly carried out, he has never seen any evil result follow operations. Finds adenoids a very common disease.

Dr. KENNA (Sydney) mentioned Chiari's diagnostic test, which is to look through the nose with a speculum; while the patient phonotes E the soft palate raises the growth up and brings it into view.

Dr. A. J. BRADY (Sydney) could not agree with Dr. Gibson that the curette is a dangerous instrument to use in the removal of adenoids. In operating, the cutting part of the ring knife is swept along the roof of the naso-pharynx from the septum backwards, keeping in the middle line. The knife is thus above the Eustachian cushions, and cannot wound them. He operates on young children under chloroform, with hanging head, using the ring knife for removal of growths. He showed the instrument with which he had thus operated on over a hundred cases. He had never seen it inflict injury to the Eustachian cushions. In a large proportion of his cases he used cocaine anaesthesia only. Most children over ten or twelve years of age were thus dealt with. The soft palate was tied forward with two rubber tubes through the nose: and using a forceps of his own design, with fenestrated blades with a large cutting surface, under the guidance of the mirror the growth was seized and removed. The advantage of the large cutting forceps was that the major portion of the growth was removed at the first cut, so the surgeon's view was not obscured by the bleeding. Several sittings are generally required, and the growths can thus be radically removed. He had, under chloroform, sometimes used the Vice-President's method of removal with the finger-nail, but preferred the curette, breaking down remnants of growth with finger-nail. This was a rapid method, occupying less than a minute, as compared with a quarter of an hour, which Dr. Quaife said removal by forceps required. The rapidity was important where tonsillotomy had to be performed under the same anaesthesia. He had chloroform administered to full anaesthesia, as under partial anaesthesia the spasmotic contraction of the soft palate prevented the delicacy of manipulation. In his experience, acute otitis media was a very unusual sequel of the operation; he had never seen suppuration of middle ear follow it. He condemned early politzerization after operation, as being likely to drive septic secretions into the middle ear. He only began inflation when the naso-pharynx was healed. He believed hereditary influence and climate to bear a large share in the production of the disease. Nearly all his cases had come from coastal districts: he has seen none from the dry inland plains. He had never seen serious complications or a fatal issue follow the operation of removal of adenoids. The disease was very common in New South Wales.

Dr. W. F. QUAIFE (Sydney), in reply, said that he found tape better than rubber tubing for tying the soft palate forward, as the knots of the latter slipped.

Dr. LOCKHART GIBSON (Queensland), in reply, has seen quite as many cases of adenoids from the dry regions in Queensland as from the coastal ones. Did not consider anterior nasal obstruction as being sufficiently common to account for adenoids. Agreed with the Vice-President that struma is not a cause. Holds that his steel finger-nail has distinct advantages, as in its use the naso-pharynx is not crowded with an instrument and finger at the same time. He frequently uses the rubber tubes to tie forward the soft palate when operating without chloroform, and he finds that they answer well. He uses posterior rhinoscopy in preference to digital examination. Seldom fails, even in young children. It is important not to alarm them, so he depresses the tongue with the index finger instead of a spatula. He has only once seen acute middle-ear catarrh follow the operation for adenoids.

He has never seen a fatal issue. Does not begin politzerization for two or three weeks after operation. Adenoids are common in Queensland.

Dr. BARRETT (Vice-President) said that the discussion had been a very profitable one; certain broad facts had been elicited. He had asked each member taking part in the discussion to state his experience of the prevalence of the disease in his locality, its influence in causing deafness, and whether he had seen any serious or fatal results follow the operation for the removal of adenoids. All were agreed that the disease is very common in Australia, that it is the cause of a large proportion of the cases of deafness which exist, and no fatal case had occurred in the practice of any of them; so that the risks of the operation for the removal of the growths with proper precautions seem to be *nil*. He has seen the growths return where he had satisfied himself by after examination that the removal had been thorough in one case three times. When the patient is again exposed to the same conditions which first caused the disease it is not to be wondered at that a relapse sometimes takes place. He could not agree with Dr. Quaife that the pharyngeal tonsil is ever affected with the same swelling as occurs in acute inflammation of the faucial tonsils. The treatment of cases after operation is very important. Cleansing with weak alkaline solutions ought to be carried out. The treatment is never complete till all obstructions in the anterior nares have been removed. He then sends the patient for a time to a dry climate to complete the recovery. In reply to a member, he said he used the middle finger in preference to the index in the removal of adenoids, because it is the stronger. The fact that all the specialists practise in the big coastal cities might explain the preponderance of adenoids in coastal regions in Australia, as cases from the interior would not be so likely to come under their notice.

(*To be continued.*)

SIXTY-FIFTH VERSAMMLUNG DEUTSCHER NATURFORSCHER UND AERZTE IN NÜRNBERG.

SUB-SECTION OF LARYNGOLOGY.

Meetings, 11 to 15 September, 1893. ("Münchener Med. Woch.")

HAUPT (Soden) recommended the *treatment of Catarrhs of the Larynx and the Naso-Pharynx by Mineral Waters*.

SCHECH (München) showed a case of that rare condition, *Chronic Fibrinous Laryngitis*, which had lasted two months, and was characterized by recurring expectoration of membranes having the conformation of the larynx. Brushing with nitrate of silver and iodoform ended in cure.

MEYERSONH (Warschau) distinguished three forms of this disease, viz., primary laryngeal croup, the laryngitis of scarlet fever, and the formation of membranes from chemical irritation. He referred to a case of laryngitis produced by inhalation of sal ammoniac. The membranes were persistent for some weeks, then were replaced by ulcers, and finally ended in cure.

MEYERSONH reported a case of *formation of Membranes in Syphilis* upon the lower part of the pharynx. It was cured by operation.

LIEVEN (Aachen) had treated a similar case.

KAFEMANN showed a drawing from a case of *Pharyngeal Tumour* operated upon by him. It was of embryonic origin.

KAFEMANN recommended a mixture of *eucalyptol* and *menthol* for treatment of inflammations and neuroses.

FLATAU (Berlin) showed a new laryngeal mirror of steel.

SEIFFERT (Würzburg) read a paper upon *Syphilis of the Pharynx, the Nose, and Larynx.*

JURASZ (Heidelberg) made a contribution on tracheal syphilis and the treatment of syphilis of the upper air-passages.

KÖBNER (Berlin) showed microscopic specimens of tracheal syphilis.

SCHECH reported five cases of *Tracheal Syphilis* observed by him. In all cases the bifurcation was affected.

FISCHENICH (Wiesbaden) recommended *local treatment, especially the removal of necrotic portions of the nose.*

SCHUSTER (Aachen) confirmed the value of local treatment.

BARTH (Marburg) had observed two cases in which *lactic efflorescences followed upon acute febrile diseases.*

KÖBNER (Berlin).—*Increase in the effects of cauterization by arrest of physiological secretions.* Cauterization of the oral mucous membranes is of less effect than it would otherwise be, because the medicament is removed by the saliva. By internal administration of belladonna and local use of cocaine, salivation is diminished, and the effect of caustic substances increased.

BETZ (Mainz).—*Rhinolithiasis of Cement Workers.*

In cement workers rhinoliths are often found amounting to ten per cent.

THOST, SCHECH, and GRUNWALD confirmed this fact.

GRUNWALD (München) believed that the presence of rhinoliths in the upper nasal passages mentioned by the author is caused by the passage of the normal air-stream, which is (as Kayser has proved) through the upper nasal canal.

MEYERSON (Warschau) reported a case of *Rhinolith of Phosphate of Calcium.*

HELBBING (Nürnberg).—*Treatment of Frozen Noses.*

In twenty-one cases the author has applied the constant current with the best effect. The contracted arteries are thus dilated and the venous circulation re-established.

ULRICHS (Halle) confirmed the communications of the author.

SCHUSTER (Aachen) made long incisions as Vidal has recommended.

SEIFFERT (Würzburg).—*Treatment of Hysterical Aphony.*

The author recommended concussion and compression of the larynx during phonation, and says that systematic treatment is of great value.

KAYSER reported a case of *Hysterical Aphony treated by Auto-Laryngoscopy.*

FLATAU recommended *probation of the Larynx.*

HEYMANN had often observed the aphonia to be combined with parästhesia.

GRUNWALD (München).—*On Ozana.* (The paper will be reported in the "Münchener Med. Woch." and referred to again.)

FLATAU and GUZMANN.—*On Ventriloquy, with Demonstrations.* (Report of the papers will be published.)

SCHUSTER (Aachen).—Demonstration of a *Hook for Removal of Syphilitic Necrotic Bones of the Nose.*

KAYSER (Breslau) showed a *Phantom of the Laryngeal Muscles.*

HEYMANN showed a *Phantom of the Laryngeal Nerves* constructed by Onodi (Buda-Pesth).

REICHERT (Berlin) showed a new *Electric Lamp for Rhinolaryngoscopy.*

SCHAFFER (Bremen) recommended *Winckler's Electric Lamp*, and showed pathological specimens.

SCHEIER (Berlin).—*On perverse action of the Vocal Cords.* (Will be published.)

HARTMANN (Berlin) showed *Anatomical Photographic Drawings* by a skiopticon, and some instruments for nasal operations.

FISCHENICH (Wiesbaden) reported some cases of *Hæmatoma* and *Primary Perichondritis* of the nasal septum. *Michael.*

SWEDISH MEDICAL SOCIETY.

Meeting, April 25, 1892.

(The report published in "Hygiea," Vol. LV., July, 1893.)

Prof. WISSING (Stockholm) reported the following interesting case of *Abscess of the Left Temporal Lobe of the Brain consequent on Otitis Media.*

The patient, a man aged fifty-one, began to suffer from pains in the left ear—buzzing and deafness—in September, 1891. The membrana tympani showed only signs of congestion, there being no symptoms of exudation in the tympanic cavity. On October 6th, after the congestion of the membrane had disappeared, there was a slight swelling over the left mastoid process, the tumefaction disappearing, however, after the lapse of a week, leaving only a slight tenderness. On October 25th, symptoms of *word-deafness* and *paraphasia* with slight signs of *verbal amnesia* suddenly developed; an abscess of the temporal lobe was suspected, but as the patient became very much better the following day, the idea of trepanation was abandoned, and the operation substituted of *resection of the mastoid process*, the antrum of which was found to be closed, while pus was present in the inferior cells. Later on, the above-mentioned cerebral symptoms appeared again with great force, and on November 20th *trepanation of the skull*, three centimètres above the external auditory meatus, was performed, without revealing any abscess. Death occurred on November 27th during an attack of convulsions. At the *post-mortem* examination an abscess was discovered immediately behind the place of the operation in the posterior part of the second temporal convolution. The case also exhibits interest, inasmuch as there was no fever during the disease, and as repeated examinations of the eye did not reveal any signs of neuritis optica. The temporal bone was, unfortunately, not examined.

Holger Mygind.

FINNISH MEDICAL SOCIETY.

Dr. OKER-BLOM, at a meeting February 6th, 1892, demonstrated a patient, fifty-seven years of age, with a calculus of the Stenonian duct, three centimètres broad and three and a half centimètres long. The stone had been discharged through the bursting of the mucous membrane.

F. KJELLMANN (Stockholm). *Two Cases of Epileptiform Fits caused by Pathological Changes of the Nasal Cavity* ("Hygiea," February, 1893).

Kjellmann relates two cases of epileptiform fits, one in a boy aged twelve, and the other in a boy aged six, in whom the fits discontinued after galvano-cauterization of the moderately swollen mucous membrane of the inferior turbinate bones. In the second case the epileptiform symptoms did not, however, disappear until several months after the operation.

Holger Mygind.

NOTES.

DR. WATSON WILLIAMS addresses us to the effect that the paper upon "Massage of the Larynx," which appeared in the "Medical Annual for 1893," and to which we referred in a recent review of this publication, was published under his name by an inadvertence on the part of the printers, and the absence of the proper reference to this Journal was an oversight.

A MEETING of the BRITISH LARYNGOLOGICAL AND RHINOLOGICAL ASSOCIATION will be held early in December in London.

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CLINICAL CASES.

Reported by GEORGE B. WHITE, M.B. Univ. Dublin, F.R.C.S.

CASE NO. I.

PSEUDO-DIPHTHERIA, OR "FALSE MEMBRANE OF THE THROAT."

THE affection about to be described occurred in the person of a young lady who was placed under the care of Sir Philip Crampton Smyly, F.R.C.S. Dublin, early in 1892, suffering, as it was believed at the time, from diphtheria.

An examination of the throat revealed patches of a yellowish membrane covering portion of both tonsils, uvula, and half the soft palate, back and front, the area immediately round the exudate looking red, vascular, and slightly oedematous. It was found that the whole membrane could be detached with a forceps (peeling off in one piece) without haemorrhage or immediate re-formation, the surface underlying becoming quite healthy and normal in two days after removal. There were absolutely no constitutional disturbances, or even functional derangements, which facts enabled Sir Philip Smyly to exclude diphtheria as a diagnosis.

The growth reappeared, and still reappears at intervals of from fourteen days to two months. A perfectly healthy condition of the mucous membrane obtains meantime, a month being an average period between its manifestations. Then in the course of a few hours (say twenty-four) the patches of membrane completely form. Every inquiry was made with a view of determining any peculiarity of life, diet, or hereditary tendency, but with negative results.

On April 12th, 1892, at Sir Philip Smyly's request, I made a micro-

scopical examination of a portion of this membrane, which disclosed the following elements:—(1) Small cells (nucleated) in lymph; (2) fibrin fibrils; (3) rod. bacteria; (4) cocci; (5) epithelium; (6) haemoglobin; with two forms of fungus spores in addition, viz., one corresponding in character to the *sacch. cerivisæ*, the other to the "actinomyces" spore.

Although these strongly resemble the spores above named, yet there must be a difference of function with regard to the latter, as, in the first place, the characters of the patches of growth are not in harmony with those known to result therefrom, and, in the second place, the most reliable antiparasitic remedies have had but little effect in stopping the recurrence of the growth, which still exists, having had now nearly a two years' duration.

Latterly the tendency of the affection is to spread forwards towards the tongue, and is not so frequently seen to recur in the pharynx. It also exhibits a slight improvement in other respects.

CASE No. 2.

CASE OF MALIGNANT STRICTURE OF THE OESOPHAGUS:

UNUSUAL SITE OF THE CONSTRICITION.

Under the care of Sir PHILIP CRAMPTON SMYLY, F.R.C.S.

THE patient, a female, middle aged, was admitted to the Meath Hospital suffering from ulceration of the upper part of the oesophagus, upon its mucous surface, at a point corresponding to the junction with the pharynx, behind the ring cartilage. The disease was treated with lactic acid, and yielded to it, apparently getting quite well. Some time afterwards symptoms of regurgitation of food, difficulty of swallowing, and the consequences of these appeared, leading to the diagnosis of closure of the oesophagus from some cause. Enlargement of the thyroid gland was noticeable. The patient eventually died. The tongue, pharynx, thyroid and oesophagus were removed, which, having been examined, gave the following result: the tongue and thyroid presented a normal appearance, save that the latter was symmetrically enlarged; the oesophagus contained a very hard circular growth at a point corresponding to the place of ulceration—*i.e.*, immediately below and behind the cricoid. A microscopic examination of this was made, which revealed it to be a very dense fibrous scirrhus, containing cells like those of the deeper strata of the oesophagus, and a great preponderance of stroma; the growth was slightly adherent to the sides of the thyroid cartilage, but apparently did not limit its movements during life.

The point of interest about this case is that malignant growths are seldom found so high up, their *locus* being nearer the lower end, while cicatricial stricture is usually found in the position in which this malignant stricture occurred.

A NEW AURAL SPECULUM.

By R. LAKE, F.R.C.S., Pathologist to the Throat Hospital,
Golden Square, London.

THE speculum consists of a silvered glass lining, covered (as in Fergusson's vaginal speculum) with hard rubber. The advantages claimed are:—

Greater reflective power.

Ability to use caustics through a bright speculum without injury to the surface.

With a good direct light to be able to do without a reflector.

They are to be had in three sizes, and are of the same shape as Politzer's, and have been made for me by Messrs. WALTERS & CO., 29, Moorgate Street, City.

DIPHTHERIA, &c.

Wingrave (London).—*Anæsthesia for Operations on the Throat and Nose.*
“Brit. Med. Journ.” Sept. 23, 1893.

IN this communication Mr. Wingrave strongly recommends the use of gas as an anæsthetic, having in 90 per cent. of 1100 cases used this alone, administered through a modified Clover's gas and ether inhaler. Wingrave's mouth prop is securely placed before applying the face-piece, the patient assuming a sitting posture in a fixed chair. An expert can, it is stated, remove both faucial tonsils and the most luxuriant growth of adenoids under the influence of one gas anæsthesia. Chloroform anæsthesia, it is shown, is responsible for five deaths in these particular operations in less than two years—a mortality which strongly predisposes in favour of the gas.

Wm. Robertson.

Cozzolino, V.—*Microcidine and Chloride of Sodium for Microbic Impairments, particularly Pyogenic, of the Ear, Nose, and Throat.* “Riforma Medica,” No. 50, Aug. 30, 1893.

APART from the second remedy, for a long time very well known and appreciated, we simply quote here that Cozzolino found microcidine (naphthol, thirteen per cent., and caustic soda) very serviceable in the above diseases. In purulent otitis, warm solutions of three to four per cent.; in chronic suppurations of the maxillary sinus, one to two per cent., or one-half per cent.; and in simple tonsillitis, two and a half to three per cent. He prefers it to all other antiseptic remedies. *Massei.*

Frazer, R. F. (London).—*Sublimed Sulphur as a Local Application in Diphtheria.* “Brit. Med. Journ.” Nov. 4, 1893.

A REFERENCE to a severe case of diphtheria, which recovered, and in which sublimed sulphur was used, being blown frequently on to the diphtheritic membrane.

Wm. Robertson.

Jack, R. J. (London).—*Kerosene in Diphtheria.* “Lancet,” May 13, 1893.

DR. JACK mentions two cases—one of diphtheria, and one of late post-scarlatinal diphtheria—in which clearance of the throat and recovery appeared to be due to the employment of the vapour of kerosene or kresaline (?). A teaspoonful every three hours is placed in a vaporizer so as to fill the room with the vapour.

Dundas Grant.

Councilman.—*Diphtheria.* “American Journ. Med. Sciences,” Nov., 1893.

IN this paper the literature on the subject is well brought together, but nothing new is added to it.

R. Lake.

Friedenwald, H.—*Post-Diphtheritic Paralysis of both External Recti Muscles.* “Med. News,” Oct. 21, 1893.

THE patient had had a very mild and unrecognized attack of diphtheria.

R. Norris Wolfenden.

Williams.—*Membranous Throat Affections.* “American Journ. Med. Sciences,” Nov., 1893.

AFTER advocating cover-glass preparations and cultures of all suspicious throats, he demonstrated the Klebs-Loeffler bacillus in scarlatinal diphtheria in about twelve per cent. of all cases of scarlet fever. In reviewing the treatment, he hopes for good from serum injections from immune animals. He dismisses the usual germicides as inefficient. Excepting hydrogen peroxide, fifty volume solution, or twenty-five volume with one and a half per cent. of hydrochloric acid, respectively, it is non-poisonous. Cocaine may be used previously. Dr. Williams also has a set of syringes, sprays, etc., made for this application, and appends a map, showing the distribution of diphtheria in America. He describes the bacillus as tenacious of life—not killed by cold or damp, but by sunlight; period of incubation, probably a few hours. A case is reported in this paper by Dr. J. F. Young in which membrane disappeared under peroxide and reappeared under carbolic.

R. Lake.

Galloway, W. W.—*A Treatment giving a low Death Rate in cases of Diphtheria in Hospital and Private Practice.* “New York Med. Journ.,” Oct. 21, 1893.

THE results obtained were below ten per cent. The treatment consisted of calomel one grain per annum of the patient's age up to eighteen, repeated in four to six hours, and meeting the action of the mercurial with large enemata of hot water; this treatment is continued until full action of the calomel on the liver and kidneys is obtained. Internal treatment, hyd. perchlor. up to one-eighth of a grain, tinct. ferri perchlor. and alcohol hourly; topical treatment, peroxide of hydrogen and twenty per cent. solution of salicylic acid in alcohol, twice daily. The latter is powerful and aids cure.

R. Lake.

Culbertson, J. C.—*Diphtheria: its Special Diagnosis.* “New York Med. Journ.,” Oct. 21, 1893.

A PAPER read at the Mississippi Valley Medical Association, in the course of which the author referred to the importance of bacteriology,

and mentioned that the New York City Board of Health had undertaken to make bacteriological examinations for all practitioners of medicine free of charge.

R. Norris Wolfenden.

MOUTH, PHARYNX, &c.

Robertson, William (Newcastle). — *Ulcer of the Tongue.* “*Lancet,*” June 24, 1893.

A SEVERE case of ulceration and multiple nodulation of the tongue of malignant aspect. It yielded to scraping of the ulcers, galvano-cauterization of the nodules, and general treatment by means of mercurial inunction and iodide. Dr. Robertson attributes the rapid relief of pain to destruction of the terminal nerve-twigs by means of the cautery. *Dundas Grant.*

Gorokhoff, Dmitry E. (Dmitrov, Russia).—*Hard Chancre of the Buccal Mucous Membrane.* “*Meditzinskië Obozrenië,*” 1893, No. 17, p. 436.

A PEASANT girl, one year old, was admitted with an indolent, bright-red, crateriform ulcer, situated on the mucous membrane of the right cheek, at the level of the posterior molars, and measuring three-quarters of a centimètre horizontally and a half vertically. Its edges were hard and elevated, forming sharp angles both posteriorly and anteriorly. Both the edges and floor were slightly uneven, and studded with minute points of a milky colour, while the intermediary zone between the base of the chancre and the healthy mucous membrane was marked by a white line. There was present some enlargement of the submaxillary glands of the right side. A week later there supervened roseola, *plaques* on the tonsils and soft palate, etc. Under the influence of mercurial inunctions all the manifestations subsided, the buccal sore healing soundly after a month's treatment.

The inquiry elicited that the infant's syphilitic sister and nurse, aged eight, “had been in the habit of feeding the patient by her mouth”—i.e., by bread thoroughly masticated by the feeder and then introduced deep into the little child's mouth by means of a forefinger.

Valerius Idelson.

Simpson, W. K.—*Sarcoma of the Soft Palate, illustrating the Degeneration of a Benign into a Malignant Growth.* “*New York Med. Journ.,*” Oct. 28, 1893.

THE case lasted, from commencement to termination, two years and three months. The patient, a girl of sixteen, had an apparently simple papilloma removed by scissors. Sixteen months later she came under Dr. Simpson's care with several distinct papillomatous masses springing from different parts of the soft palate, and one or two on the right anterior pillar of the fauces. They were greyish-red, pedunculated masses, exactly similar to those previously removed. These were removed. During the next two months several growths were removed—sometimes removing a large portion of the soft palate; the recurrence was very

rapid. At this time infiltration and change in the character of the growth took place. A microscopical examination proved the growth to be sarcomatous. It was freely removed by Dr. A. J. McCosh under cocaine anaesthesia. The recurrence occurred two months after, and the patient gradually sank.

R. Lake.

De Blois, T. A.—*The Cautery in Staphylotomy.* “New York Med. Journ.” Oct. 28, 1893.

HE uses a fixed loop, and claims for this method a better shaped stump, less sloughing, and no haemorrhage or oozing afterwards. *R. Lake.*

Ingals (Chicago).—*Follicular Tonsillitis—Intumescent Rhinitis—Cauterization—Hypertrophic Rhinitis.* “Internat. Clinics,” 2nd Series, Vol. IV.

THIS lecture is illustrated by cases presenting the lesions in question. A case of acute follicular tonsillitis is referred to where at the onset, along with irritation in the left tonsil, the knees and other joints ached as if with rheumatism. In such cases the fever ranges from 103° to 105° ; there is usually no difficulty in opening the mouth, etc. In follicular tonsillitis the fever is usually higher than in diphtheria, where it may be subnormal. In the latter disease there is odour *sui generis*. In tonsillitis the individual is usually ill for from four to eight days, and makes a rapid recovery without sequelæ. Treatment consists primarily in clearing out the bowels, and then using one or other of the recently introduced antipyretics, e.g., phenacetin. If rheumatism is suspected, rheumatic remedies are of first importance. Many of these cases are suspected of being of septic origin; probably some are actually diphtheritic in character. As a local measure it is recommended to swab the diseased tonsillar surfaces with a 60 gr. to 3*i* solution of argent. nit.

The next case described is that of a man whose complaint is that when he lies down his nose stops up. This has existed for one year, and is worse on the left side. Mucus drops down from behind the palate, due to increased activity of the mucous glands and decrease of natural evaporation by occlusion of the passages. Inspection shows the left turbinal enlarged so as to half close the passage, the right not so much so. In such a case the author considers all other remedies useless, except the snare or cautery in some form. After the cautery adhesions are to be guarded against. If exudates form over the cauterized surfaces, these are to be removed, and the part swabbed with a 10 gr. to 3*i* solution of argent. nit.

The case of “intumescent rhinitis” complained of considerable stopping up of the nose, produced by frequent colds in the head. The nares stop most frequently at night, and mucus drops into the throat. There is deafness in the right ear and tinnitus. There is pain in the chest on exertion. While examination of the thorax shows nothing of a positive nature to account for the pain, inspection of the nose shows the interior fossæ four-fifths filled with enlarged inferior turbinals. The posterior ends of these bodies project far into the naso-pharynx. The pain in the chest is thought to be due to the undue exertion thrown upon the diaphragm by the manner of breathing.

The case of hypertrophic rhinitis differs from that of the former

(intumescent rhinitis) by having his nares continuously occluded. The patient has passed the stage of markedly intermittent swelling of the turbinals. The soft parts have become permanently thickened, and the bone itself is involved in the hypertrophy. The treatment may be accomplished by galvano-cautery, chemicals, snare, or burrs. *Wm. Robertson.*

Gann, Thomas (Honduras).—*Rupture of Tonsillar Abscess into Larynx, causing Suffocation.* “Lancet,” June 24, 1893.

DURING the absence of the medical attendant in order to procure a lancet to open the abscess the patient suddenly raised herself, made a gurgling noise, and fell back dead. The abscess—which had taken only two days to form—had ruptured spontaneously and suffocated the patient. [A remarkably rapid formation.—ABS.]

Dundas Grant.

Leland, G. A.—*Recurrent Tonsillitis.* “Boston Med. and Surg. Journ.” Oct. 21, 1893.

DESCRIBES a method of dealing with tonsils in recurrent tonsillitis. He divides the tissues between the crypts by knife, scissors, and hooks, removing tabs of tissue, and painting the surface with iodine and glycerine (Mandl’s solution). This operation is frequently repeated, and, in the author’s hands, is uniformly successful; it is especially of service when tonsillotomy is objected to. He describes two somewhat scythe-shaped knives, which are introduced at one and brought out at another crypt, cutting the tissue between.

R. Lake.

De Blois, T. A.—*Reducing the Tonsils.* “Boston Med. and Surg. Journ.” Oct. 12, 1893.

THIS is a paper dealing with the various measures, including the foregoing, and ending by a decided preference being given to galvano-puncture.

R. Lake.

Meyjes, Posthumus W. (Amsterdam).—*Treatment of Chronic Catarrh of the Pharynx.* “Geneeskundige Courant voor Nederland,” Sept. 4, 1892 (“Medical Journal of Holland,” Sept. 4, 1892).

IN nearly all cases of chronic catarrh of the pharynx the author found that the cause of the sensibility during talking generally must be sought—(a) in enlargement of the so-called side-bands, which are situated quite behind the arcus palato-pharyngeus; (b) in enlargement of the tonsils, especially when the follicles are strongly developed; (c) in enlargement of the follicles of the basis of the tongue. Cauterization with chromic acid always brought healing in the cases of *a* and *c*; splitting of the follicles, according to Moritz Schmidt, in the cases of *c*, when at least removal of the enlarged part by tonsillotomy is not possible. Insufflation of a watery solution of one-half per cent. of ichthyol, applied by the patient himself every two hours, is very conducive to a rapid healing. In many cases of so-called “neurosis pharyngis” the author thinks one or more of the above-mentioned local anomalies are to be found. In real “neurotic cases” patients generally complain far more about difficulty in swallowing than about difficulty in talking.

Posthumus Meyjes.

Chavasse, Thomas F. (Birmingham).—*Lateral Pharyngotomy as a Method of Treatment in Malignant Disease of the Tonsil.* “Lancet,” June 10, 1893.

THE left tonsil had enlarged and ulcerated so as to cause haemorrhage, and to make deglutition difficult. The increase took place in spite of treatment, and there was a suspicion of enlargement of glands at the angle of the jaw. One incision was made from the lobule of the jaw to the cornu of the hyoid bone, and the parts were carefully divided down to the pharynx. A second incision was then made from the angle of the mouth to join the upper extremity of the first one. The diseased tonsil was easily manipulated and cut out with scissors. Feeding was confined to peptonized enemata for two days, but on the fourth day the drainage tube was removed, and mouth-feeding was resumed. The tumour was an alveolar sarcoma. The various plans for removal are narrated, and removal through the mouth is rejected by Mr. Chavasse as quite insufficient.

Dundas Grant.

Bewley, H. T. (Dublin).—*Case of Pharyngeal Spasm.* “Lancet,” July 22, 1893.

A MAN was affected with inability to swallow, and with constant hiccough. This continued for five days, when he died suddenly, two hours after having had a little milk by means of a stomach-tube. No cause for death could be ascertained.

Dundas Grant.

Kearney, J. (London).—*Retention of a Coin in the Alimentary Canal for more than Nine Months.* “Lancet,” July, 1893.

THIS was a copper coin, slightly larger than a farthing. There was no inconvenience of any kind from its presence.

Dundas Grant.

Harrison, C. E. (London).—*A Case of Rupture of the Oesophagus.* “Lancet,” April 8, 1893.

A MAN, aged forty-five, had been for several months suffering from eructation of quantities of fluid, vomiting, and loss of flesh, with signs of dilatation of the stomach, and symptoms of malignant disease. During violent retching something “gave way,” and intense pain in the lower half of the left side of the chest came on. This was followed by extreme collapse. Emphysema of the neck and face supervened, and death occurred about thirteen hours and a half from the onset of the collapse. On *post-mortem* examination a longitudinal slit was found in the oesophagus, just above the diaphragm. There was no sign of thinning or ulceration. The stomach was dilated, and there was a nodule of cancer near the pylorus. The literature of this rare occurrence is reviewed.

Dundas Grant.

NOSE AND NASO-PHARYNX, &c.

Cozzolino, V.—*New Hæmostatic Antiseptic Medication in Epistaxis of the Nasal Septum, and Surgical Hæmorrhage of the same, of the Turbinated Bones, Aural Cavities, etc.* “Rivista Clinica e Terapeutica,” Oct., 1893.

THE remedy which the author recommends and praises, and to which he attributes the above-mentioned properties, is trichloracetic acid, with which he, by accident, was led to experiment. He prefers a solution of one part of acid in thirty or forty of sterilized water, with the addition of a small quantity of cocaine. A small pledget of cotton is moistened with the solution (which may be weaker—one in eighty or one hundred), and applied *in situ*. He extends the application also to other hæmorrhages of different origin, and adds an application of direct compression of the septum, made by means of Jurasz's forceps for deviation of the nasal septum, and placing between this and the blades iodoform or sublimate gauze.

Massei.

Robinson, Beverley (New York).—*Nasal Catarrh.* “International Clinics,” 2nd Series, Vol. IV.

IN this sketch of nasal catarrh the author begins by remarking that Hippocrates thought it a disease of the brain, and Schneider that it was a constitutional disease. The French suppose it to be of diathetic origin, while the Germans incline to attribute it to local causes, to which general opinion tends. Admittedly there is an underlying constitutional condition which can be provisionally called a predisposition to catarrhal inflammation, apart from scrofula, syphilis, tuberculosis, or gout: but accompanying this there is in many cases more or less nasal obstruction, arising from accidental causes or some defect of development, *e.g.*, deviated septum. Certain drugs, *e.g.*, sulphur, cubeb, ammoniacum and ammonium are eliminated through the mucosa of the nasal passages, of which cubeb is a good example, and has done much good in catarrhal affections *per se*. A tablet composed of gr. $\frac{1}{4}$ each of ammonium and powdered cubeb, with some liquorice, together with codeia, if there is much cough, is recommended. Ammon. carb. in large doses frequently repeated is extolled in catarrhal affections in the head, and even of the larynx. If the catarrhal affection is due to gout, guaiacum and colchicum is prescribed; if syphilis, mercury and iodide. If bad drainage is detected this is to be pointed out. Sir Morell Mackenzie used to say that all the catarrh in America was due to the filth and bad drainage of the towns. Ten or fifteen years ago every physician was using sprays and powders to the nasal mucosa, but this practice did not long remain popular. Again, the nasal douche was widely used, until it was pointed out that it caused otitis. The douche was also found to interfere with taste and smell, due to its irritating effect on the nasal mucosa. Neither spray nor douche can reach all parts of the nasal cavities. The important constitutional conditions underlying catarrh must in every case be borne in mind.

D D D

Adenoids must be removed. Very few people have perfect nasal respiration on both sides ; only two out of twenty-seven can so breathe, so that according to the average specialist the other twenty-five are fit subjects for operation. If obstruction cause aural trouble then operate by all means. In nine-tenths of obstructed noses requiring operation Weer's forceps are as good as all the usual expensive paraphernalia. Drills and trephines are not necessary. Eight-tenths of all cases of nasal catarrh are due to thickened mucosa, and for the treatment of this chromic acid is recommended. Gottstein's curette is preferred for the removal of adenoids. The point of view of the general practitioner and that of the specialist will never be the same, and in this lecture a broad appreciation of the subject is endeavoured after.

Wm. Robertson.

Lefferts (New York).—*Treatment of Chronic Rhinitis.* “International Clinics,” 2nd Series, Vol. IV.

DR. LEFFERTS recognizes three forms of chronic rhinitis, and insists upon the treatment of the constitutional condition, which is often found present and underlying the local lesion. The three drugs recommended as having an influence on the respiratory mucous membrane are cubeb, muriate of ammonium, and gum ammoniacum. The promiscuous use of the nasal douche is condemned. The frequency of use and amount of fluid used must be brought down to a minimum. In obstructive rhinitis and ozaena some form of cleansing becomes a necessity ; the form recommended is that of the nasal spray apparatus, which throws a coarse spray that serves the purpose with less than an ounce of fluid. One or two modifications of Dobell's solution are referred to. For organized hypertrophic rhinitis, chromic acid or cautery is used ; for erectile tissue tumour of the posterior end of the inferior turbinal, Jarvis' snare is recommended. The treatment of atrophic rhinitis is considered hopeless.

Wm. Robertson.

Fourth Annual Report of the Committee of Collective Investigation of the Anatomical Society of Great Britain and Ireland for the year 1892—1893. “Journal of Anatomy and Physiology, etc.” Oct., 1893.

Table IV. of this report refers to the variation in the number of meatuses in the nasal fossæ. Total number examined, four hundred and fifty-two.

1. In three instances (or about two per cent.) the superior turbinate bone was absent, hence there were only two meatuses.
2. There were eighty-five (or fifty-six per cent.) examples of the condition most commonly described.
3. Sixty-two (or forty-one per cent.) cases presented a concha suprema, coexistent with four meatuses.
4. In two (or 1·3 per cent.) there were five meatuses, the highest underlying a small projective lamella of bone, which is placed on a higher level than the concha suprema.

In one instance where the superior turbinal was absent, there was a horizontal plate of cartilage projecting into the nasal fossa from the septum, on a level with the inferior turbinal.

In this return the conditions varied much on the two sides, but no attempt has been made to tabulate the relative frequency of symmetry and asymmetry.

The relation of the various apertures of the air sinuses into the nasal fossa has been recorded by various observers, and Mr. W. S. Haughton, of the School of Physic, Trinity College, Dublin, in an elaborate report, furnishes the subjoined table of results :—

TABLE OF RESULTS.

Apertures.

Antrum of Highmore—One aperture occurred in.....	53	per cent.
" " Two apertures " ".....	41·1	"
" " Three " ".....	2·9	"
" " Opening by two apertures <i>into the infundibulum</i> in	17·6	"
Anterior ethmoidal cells opening by <i>one</i> aperture just <i>above</i> middle of infundibulum in.....	76·4	"
Anterior ethmoidal cells by <i>one</i> aperture <i>into</i> infundibulum in	8·8	"
" " <i>two</i> apertures, " ".....	2·9	"
" " <i>three</i> (<i>two</i> of these opening into superior meatus, and one into middle meatus) in.....	5·8	"
Anterior ethmoidal cells by <i>one</i> aperture <i>into</i> gutter above infundibulum, common to the frontal sinus as well	5·8	"
Middle and posterior ethmoidal air sinuses, both opening into the superior meatus, in	88·2	"
Middle ethmoidal, by <i>one</i> aperture into superior meatus ...	5·8	"
" " <i>middle</i> " "	2·9	"
" " <i>two</i> apertures (<i>one</i> in a second gutter in the middle meatus, and <i>one</i> into superior meatus) in	2·9	"
Posterior ethmoidal by <i>one</i> aperture <i>into</i> fourth meatus.....	8·8	"
Middle and posterior ethmoidal by <i>one</i> <i>into</i> superior meatus	75·3	"
" " <i>two</i> " " "	11·7	"
" " <i>three</i> " " "	5·8	"
Frontal air sinus by <i>one</i> aperture <i>into</i> anterior end of infundibulum in	94·1	"
Frontal air sinus by <i>one</i> aperture <i>into</i> a second gutter over infundibulum in	5·9	"
In Crista Galli an air sinus by <i>one</i> in	2·9	"
In middle turbinal an air sinus by <i>one</i> in	2·9	"

Mr. Parsons, of St. Thomas's, further adds that in one case the opening of the posterior ethmoidal cells lay in front of the superior turbinal. In one specimen, with three meatuses, the antrum opened into the superior as well as into the middle meatus. In this case the opening of the posterior ethmoidal cells was above the superior turbinal.

In another case, where the superior turbinal was represented by a mere ridge of mucous membrane, the antrum had two openings, one above and the other below the middle turbinal. The opening of the posterior ethmoidal cells lay anterior to the opening of the antrum in the superior meatus. Mr. Delany, Dublin, notes that in four cases, with

traces of a fourth meatus, the posterior ethmoidal cells opened thereinto, and in three there was a foramen leading into the sphenoidal cells.

Wm. Robertson.

Lieven, D. (Aix-la-Chapelle). — *On the Relationship between Diseases of the Nose and the Eye.* “Lancet,” June, 24, 1893.

A REFERENCE to this work indicates that it is a reprint from the “Medizinische Wochenschrift,” and that it gives a bibliography of the subject, and numerous instances of beneficial results following treatment of the nose.

Dundas Grant.

Robertson, Wm. (Newcastle). — *On the Treatment of Ozæna and Recurrent Nasal Polypi by Opening and Draining Highmore's Antrum.* “Lancet,” April 29, 1893.

The author holds that in almost every case of ozæna diligent search will reveal some other condition besides the mere ozænaceous state in the nose, and notably such conditions of the antrum as congestion of the mucous membrane, with resulting stenosis of orifice, and retention, exhalation and secretions, inspissation of secretion and retention of fluid foetid pus. There may be disease of the middle turbinal, without polypi, leading to swelling of the bone and pressure on the septum, or it may be cystic and contain pus. In several cases which did not yield permanently to the various recognized methods of treatment, Dr. Robertson opened and drained the antrum, and put an end to crust formation. He recommends an opening of the size of a sixpence in the anterior wall, and makes use of an electric search-light. An india-rubber drainage tube is introduced, and kept in for fourteen days, and then replaced by an S-shaped leaden spigot. When this operation is refused he employs a gimlet-pointed trocar, with a canula having an external rubber flange, and makes an opening low down in the canine fossa. He objects to an opening through the nasal wall of the antrum. Several very illustrative cases are narrated in support of the views enunciated. *Dundas Grant.*

Martin, W. — *Deviations of the Septum Nasi.* “Med. News,” Oct. 21, 1893.

THE opinions of various investigators as to the frequency of septal deviations are quoted; then Stocker's classification; next, the author puts forward the various theories of its causation, and his opinion of the close connection between hypertrophic rhinitis and septal deviations.

R. Lake.

Caldwell, G. W. — *A New Operation for the Radical Cure of Obstruction of the Nasal Duct.* “New York Med. Journ.,” Oct. 21, 1893.

PASSING too large lachrymal probes is doubtless responsible for many cases of complete closure of the nasal duct. Periostitis ends in exostoses, which close the canal permanently. Cicatrices and bony fractures of the maxilla also obstruct it. Where a probe cannot be passed it has been the practice to obliterate the sac and duct by cautery or knife, but the conjunctival secretion which must then pass over the face is often troublesome and leads to eczema. The author's operation avoids these inconveniences. The lachrymal probe is passed into the obstruction, and left *in situ*. The anterior end of the inferior turbinated bone is removed

with the electric trephine as far as the opening of the nasal duct, and, continuing the operation upwards, removing the nasal wall of the nasal duct, together with the exostosis, the tip of the probe is reached and free drainage established.

R. Norris Wolfenden.

Sewill, H. (London).—*The Etiology of Empyema of the Antrum.* “Lancet,” May 6, 1893.

A LARGE proportion of cases of simple empyema are due to dental caries, or rather to its sequelæ, exposure, and inflammation of the dental pulp and alveolar abscess.

Dundas Grant.

Watson, Spencer (London).—*Mucocele of the Frontal Sinus.* “Lancet,” May 6, 1893.

THE patient complained of troubles in connection with the left eye—pain in the supra-ciliary and frontal region and double vision—and a swelling of the upper and inner part of the orbit following erysipelas. There was polypoid enlargement of the upper and middle turbinals. Under general treatment, and irrigation of the left nostril with boric lotion, the trouble entirely subsided.

Dundas Grant.

Stewart, W. R. H. (London).—*A Case of Suppuration in the Ethmoidal Cells.* “Lancet,” April 29, 1893.

A HARD, rounded swelling at the inner angle of the orbit, pressing the eye-ball downwards and outwards, remained as the result of an abscess in the orbit following scarlet fever of twenty years before. There had been attacks of pain with swelling from time to time. Mr. Stewart found a swelling in the place of the middle turbinal, which on incision gave vent to pus, and broke down under pressure, so as to allow the little finger to be passed into the orbit and the frontal sinus. Under washing much débris of diseased bone came away, and with drainage rapid recovery was effected.

Dundas Grant.

Meyjes, W. Posthumus (Amsterdam).—*The Removal of Adenoid Vegetations.* “Nederlandsch Tijdschrift voor Geneeskunde,” 1893, Deel I. (“Dutch Medical Periodical,” 1893, Part I.).

THE above-mentioned operation, oft repeated (twice and more) on the same patient can be executed, in the author's opinion, at once by only using the instrument of Gottstein, lately not unpractically altered by Hicquet. The Gottstein instrument suits best the form of the fornix pharyngis, as author found in examining a great many craniums of children. The opinion that the adenoid vegetations would grow again after the removal is false, and only caused by the fact that the tonsil was not completely removed. Remains left behind may grow out again. The tip of the finger, as well as the little ring-knives, only tear the tonsil in pieces. By the Gottstein instrument the tonsil can be removed *in toto*, as the author was able to show several times. Narcotics are never applied by the author, as is generally the custom in England. It is well known that children with adenoid vegetations may be bodily and mentally very dull; but the author found cure in a pneumatic establishment very restorative after the local treatment.

Posthumus Meyjes.

Gibbons, P. J.—*An Adenotome for Removing Adenoid Growths in the Vault of the Pharynx.* “New York Med. Journ.” Oct. 21, 1893.

AN instrument after the plan of a tonsil guillotine.

R. Lake.

Newcomb, J. E.—*The Occurrence of Haemorrhage after the Removal of Adenoid Tissue from the Vault of the Naso-Pharynx.* “Amer. Journ. Med. Sciences,” Nov., 1893.

THE article commences with enumerating the various sequelæ of this operation:—(1) bronchitis from inhaled blood; (2) septic bronchitis; (3) suppurative otitis media; (4) haemorrhage. The author then proceeds to report a case in which he operated on a healthy child three years and nine months of age under an anaesthetic for post-nasal growth. In four hours after the operation haemorrhage set in; assistance was not sent for until twelve hours later, and the child died half-an-hour after, the lungs evidently containing much blood. No *post-mortem*. Dr. Cartaz's views are quoted, and the literature of the subject revised, with a result of three deaths quoted. No treatment is suggested for this trouble, but plugging appears the means usually adopted to check haemorrhage.

R. Lake.

Love.—*Chorea in its Relation to Rheumatism.* “New York Med. Journ.” Oct. 21, 1893.

A PAPER read at the Mississippi Valley Medical Association, in the course of which irritation in the nostrils and adenoid growths in the vault of the pharynx were considered as exciting causes of chorea.

R. Norris Wolfenden.

LARYNX.

Alston, H. (Trinidad).—*Strange Incidents in Practice.* “Lancet,” April 8, 1893.

A MIDDLE-AGED sailor, with a vague history of an injury to the head, was speechless, but able to communicate by writing. Under A.C.E. anaesthesia he spoke volubly, but on regaining consciousness he again lost his power of speech. Three weeks later his speech returned suddenly. [The exciting properties of ether or A.C.E. make them probably preferable to chloroform alone for the detection of simulated mutism.—ABS.]

Dundas Grant.

Davies, Arthur T. (London).—*The Inferior Laryngeal Nerve. A Reply.* “Lancet,” April 1, 1893.

REPLYING to Dr. W. Ramsay Smith's criticisms on the late Dr. Herbert Davies' views with regard to the laryngeal nerves, Dr. Arthur Davies points out that, though in man the laryngeal movements during quiet breathing are inappreciable, they are in animals well marked; also that when in a living animal both recurrents are divided the glottis becomes narrowed; that the width of the rima is during life fourteen millimetres, and after death only five millimetres, and that after division of the

recurrents in animals the vocal cords are drawn inwards and downwards so as to tend to occlude the glottis. He points out the difference in length between the phrenics corresponding to that between the recurrents, and calls attention to his father's theory, that the relative shortness of the superior laryngeal is peculiarly appropriate in view of the necessity of rapid transmission of sensory impulses in case of foreign bodies irritating the entrance of the larynx.

Dundas Grant.

Lucatello, L.—*Contribution to the Pathogenesis of Laryngeal Diseases in Typhoid Fever.* “Gaz. degli Ospitali,” No. 132, Nov. 4, 1893.

THE presence of the Eberth-Gaffky bacillus in the expectoration and in sections of the mucous membrane of the larynx (all this done according to the ordinary methods of bacteriology and bacterioscopy) tends to accredit the clinical opinion, according to which the laryngeal diseases of typhoid fever were considered as localizations of the typhoid virus, and not as secondary impairments. The value of these researches seems to the abstractor the greater when we consider that on laryngoscopic examination there was only found a catarrhal laryngitis, which the autopsy confirmed, and that the Eberth-Gaffky bacillus was seen also in sections of pieces of the mucous membrane of the larynx, detached with all antiseptic precautions from certain places where it appeared to be more swollen and congested. The patient was a young man, eighteen years old, dying from general poisoning on the twenty-first day of the disease.

Massei.

Bond, J. W. (London).—*Myxo-Chondroma of Larynx of Three and Three-quarter Years' Duration—Partial Excision of Larynx—Recovery.* “Lancet,” June 3, 1893.

THE tumour grew from the posterior part of the cricoid cartilage, enlarging its sides and expanding the thyroid cartilage. There was paresis of the right cord; a portion projecting into the larynx was removed with forceps, and found to be myxo-chondromatous. At the operation all the larynx was removed with the exception of the epiglottis, of the posterior and superior borders of the thyroid cartilage, and some of the mucous membrane of the brim. A nasal feeding tube was inserted the night before, and retained for nine days. An artificial larynx was adapted, and found to permit of excellent voice without a reed. This interesting case was shown to the Clinical Society on April 28th, 1893.

Dundas Grant.

Mackenzie (Edinburgh).—*Sequel to a Case of Intra-Laryngeal Removal of a Cystic Tumour in a Woman Eighty Years of Age.* “Brit. Med. Journ.,” Oct. 21, 1893.

THIS operation, referred to in the pages of this Journal in 1893, was performed in August, 1892. A year afterwards, on examining the patient, she was found perfectly well, with an apparently quite normal larynx. Dr. Mackenzie states that this case, which in some respects is a unique one, is illustrative of the value of intra-laryngeal surgery in averting tracheotomy for effecting the permanent removal of certain varieties of laryngeal tumours.

Wm. Robertson.

Masini, G. — *A Needle in the Larynx.* “Gaz. degli Ospitali,” No. 93, Aug. 5, 1893.

THE foreign body was easily removed under the laryngoscope after application of cocaine. The interest of the case lay in the fact of the special position of the foreign body—the head in the right ventricle, the point in the meso-arytenoid region. No other symptom was present, except dysphagia, on account of the point of the needle, which, when aliment passed over the pharynx, was deeply pressed into the mucous membrane. The needle measured thirty-two millimetres in length.

Massei.

Leech, Priestley (Halifax). — *Stenosis of the Trachea after Tracheotomy.* “Lancet, June 3, 1893.

A LITTLE child had stridulous breathing after having a nutshell in its mouth, and tracheotomy was performed. After a few days the trachea was explored by means of a finger passed through the tracheotomy wound, but the nutshell was not felt, and was supposed to be in the larynx. This was opened with negative result, and the trachea was then split downwards. The obstruction was found to be due to a cicatricial contraction of the portion of the trachea in contact with the upper part of the tracheotomy tube. The tube was introduced higher up, and after a few days was removed, and in due course the patient was removed from the hospital. She died suddenly some weeks later. *Dundas Grant.*

Gay, G. W. — *Tracheotomy and Intubation at the Boston City Hospital.* “Boston Med. and Surg. Journ.,” Oct. 14, 1893.

A CRITICAL review of the hospital practice in dyspnœa for the last six years. After comparing the two procedures, he arrives at the question, “Does tracheal section relieve dyspnœa in those cases where intubation fails?” and regards the answer as the key to the situation. However, only seven cases of secondary tracheotomy recovered out of fifty-eight, and it is shown that, where intubation fails to relieve dyspnœa, tracheotomy is only of service when either the intubation tube blocks or membrane is pushed in front. The conclusion arrived at is that intubation is preferable to laryngotomy for the relief of acute laryngeal obstruction in children. *R. Lake.*

THYROID, NECK, &c.

Horsley (London).—*Discussion on the Pathology of the Thyroid Gland.* “Brit. Med. Journ.,” Sept. 23, 1893.

THE point referred to is that a preparatory course of feeding or injection be carried out, so as to provide that the grafted gland should be embedded in normal connective tissue and not diseased.

Wm. Robertson.

Stewart, Grainger, and Gibson, G. A. (Edinburgh).—*Notes on some Pathological Appearances in Three Fatal Cases of Graves' Disease.* “Brit. Med. Journ.” Sept. 23, 1893.

IN all three cases the change in the thyroid gland was identical. There was glandular hyperplasia with catarrhal changes in some of the acini, which were more numerous and smaller than usual, and were separated by a delicate connective tissue stroma. The colloid material had almost entirely disappeared, and there was an interstitial change, attended with much cellular proliferation, spreading inwards from the capsule. The trabeculae contained a considerable number of blood-vessels, some of large size, but the gland was not very vascular. In one case there was no change in the nervous tissues. In another there was a haemorrhage into the fourth ventricle, which had caused the development of the so-called colloid bodies. In the third there was a small suppurating cyst on the lower aspect of the pons varolii. No other changes in the nervous system could be detected.

Wm. Robertson.

Sukatcheff, Nikolai S. (Samarkand, Russian Asia).—*Endemic Goitre in Samarkandskaia Oblast.* “Vratch,” 1893, No. 17, p. 493.

SAMARKANDSKAIA OBLAST, like certain other districts of Turkestan, is one of the classical domains of endemic goitre, some villages being goitrous almost to a man. The native population attribute the affection to their drinking water. Of nine hundred and twenty-four goitrous inhabitants (nine hundred and eight men of fourteen to sixty, and sixteen women of forty to fifty-five) of a large village, Dagbit, examined by the writer, only in eleven a vascular variety of the new growth was found, the remainder suffering from “ordinary goitre (*Obyknovennyi Zob*).” A few patients complained of difficult breathing and increased pulsation of the carotid and thyroid vessels, the symptoms being directly due to the large dimensions of the tumour. In all other cases the patient's general condition was entirely satisfactory, the swelling giving rise to no discomfort whatever. According to the author, a native attacked by goitre never pays any attention to it until the tumour begins to cause some respiratory and vascular disturbances. Then he or she proceeds to treat himself or herself by the “*kilan-kuurgak*,” a common indigenous plant, which enjoys a high reputation in the Samarkand popular medicine as a “specific” remedy for goitre. As Prof. A. F. Batalin of St. Petersburg has shown, the plant is nothing else than the *Cynoglossus macrostylum brige*, of the natural family *Boraginaceæ*. The remedy is used both internally and externally. Internally it is taken in the shape of an aqueous infusion prepared from the whole plant minced (including the root), an average daily dose of such “tea” being six tumblerfuls. Simultaneously a well-steamed leaf of the plant is applied hot to the tumour and fixed by a piece of some woollen stuff, the simple dressing being changed once daily. The treatment is continued until the patient has obtained a more or less pronounced improvement—that is, until all uncomfortable sensations have disappeared, and the tumour is more or less markedly diminished in bulk, after which the patient leaves his goitre alone. The natives certify positively that “such a goitre as has once decreased in size under the

influence of the *külan-kuirgak* will never grow any more, remaining *in statu quo* for the rest of the subject's life." Similarly successfully the remedy is employed for the treatment of all possible tumours, abrasions, etc., in horses and cattle, the diseased parts being kept covered with a sort of plaster made of the plant.

[One cannot help thinking that the cynoglossus treatment of goître deserves a careful and impartial investigation by scientific practitioners.—*Reporter.*] *Valerius Idelson.*

Gibson, E. Valentine (Glasgow).—*A Rapidly Fatal Case of Angina Ludovici.*
“Lancet,” June 3, 1893.

A VERY typical case answering to Ludwig's description as given by Parker in the “Lancet” for October 25th, 1879. Violent dyspnœa called for tracheotomy, but this was followed by considerable emphysema. An incision from chin to hyoid evacuated much serous discharge, but no pus. Death ensued next day with cyanosis and coma. There were several pulmonary infarcts. Dr. Gibson advises early intubation and incisions in these very trying cases. *Dundas Grant.*

Sheboldaieff, V. V. (Tchernigoff, Russia).—*Parotitis Septicamia due to Leeching.*
“Meditzinskoë Obozrenië,” 1893, No. 17, p. 482.

A JEWISH driver, aged fifty-eight, was found to be suffering from left-sided acute parotitis, and was accordingly ordered to apply four leeches below the ear. Shortly after the leeching, which had been made at a dirty barber's shop, there appeared severe manifestations of general septic poisoning, accompanied by intense aggravation of local phenomena. A couple of days later the patient died. The necropsy revealed septic thrombosis of the external and internal jugular veins on the side of the parotitis. *Valerius Idelson.*

E A R.

Cuperus, N. J. (Leiden).—*The Limit of Hearing for Low and High Tones in Connection with Age.* Praefschrift, Leiden, 1893 (Dissertation, Leiden, 1893).

SOME years ago Zwaardemaker (Utrecht) fixed the limit at which high tones would still be heard, and he found as a rule that the faculty of hearing high tones declined proportionately with the increase of age. The examinations of Cuperus confirmed the result of these observations. In his dissertation he intended to fix also the limit for low tones. He therefore used the apparatus of Apunn, and could still hear a tone of eleven vibrations. Before him other examiners, as Sauveur (1700), Chladni, Biot, and lately Helmholtz, Wolff, and Apunn, found as the limit of hearing a tone of 10, 12, 16, 24, 45 and 48 vibrations. Cuperus doubts whether a tone of 10 vibrations could still be heard. He examined his result on 189 ears: 28 ears could still hear a tone of 9 vibrations, only 3 ears heard a tone of 19 vibrations. From 10 to 20 years he found the low limit average was a tone of 10·10 vibrations; from 20 to 30 years, 10·54; from 30 to 40 years, 10·85; from 40 to 50 years, 11; from

50 to 60 years, 12·33 ; above 60 years, 12·95 vibrations. The shrinkage of the tone ladder at its lower end thus amounts to two or three vibrations. Four engravings are added to the work. *Posthumus Meyjes.*

Meyjes, W. Posthumus (Amsterdam).—*Treatment of Progressive and Persistent Deafness, and of Chronic Suppurative Inflammation of the Middle Ear by Removal of the Ossicles.* “Nederlandsch Tijdschrift voor Geneeskunde,” 1893, Deel I. (“Dutch Medical Periodical,” 1893, Part I.)

SEVERAL dozens of cases of chronic purulent otitis media have been treated by the author by removal of the drumhead, malleus, and incus, or drumhead and malleus alone, all other methods of treatment having been applied unsuccessfully during a long time. Most cases were “attic” cases, where hearing was generally tolerably good, which was not the case if the drumhead was totally destroyed, and the malleus, strongly drawn back, was fixed by bands in the drum cavity. According to the French authors the scraping of the drum cavity as far as possible stopped the suppuration in such cases, where nothing more was found of ossicles. Increase of hearing and relief of tinnitus was most remarkable after removal of the malleus in cases where this ossicle was fixed in an abnormal situation, where the stapes thus was pressed inward by the immovable incus. The better communication there above made between the drum cavity and the attic obviously accelerated the curing of the suppuration. The result of the removal of the drumhead and the malleus in sclerotic cases was far behind the improvement of the hearing in suppurative cases, although a better conception for sounds could not be denied in two cases of sclerosis operated upon by the author. The very satisfactory results obtained in purulent otitis media by the above-mentioned method the author thinks a strong argument against the immediate performing of the far more radical operations according to Stacke, Küster, and others. These operations are, however, indicated when a more gentle treatment is not successful.

Posthumus Meyjes.

Gowers (London).—*The Nervous Sequela of Influenza.* “Lancet,” July 8, 1893. IN the region of the special senses nervous sequelæ are not frequent, but *hyperacusis* has accompanied *aural neuralgia*, *nerve-deafness* and *tinnitus* have occasionally occurred, and in one case the peripheral irritation produced a form of *central tinnitus*, the subjective sounds, at first simple, becoming more elaborate and taking the form of tunes, the sensitiveness of the auditory centre being also shown by the fact that every tune the patient heard repeated itself continuously for hours in spite of all he could do. Middle-ear inflammation had its usual nervous symptoms, and was a frequent consequence of influenza. *Loss of smell and taste* was probably of catarrhal rather than nervous origin.

Dundas Grant.

Wherry, George (Cambridge).—*A Blue-Bottle and Maggots Removed from the Ear.* “Lancet,” June 3, 1893.

FIFTEEN minutes after the insertion of a blue-bottle—by a practical joker—into the patient’s ear, the writer removed the insect, and with it a number of tiny white maggots.

Dundas Grant.

Pritchard, Edward J. (Chiswick).—*Foreign Body in the Ear for Twenty-one Years.* “Lancet,” June 10, 1893.

A PEA had been inserted in the patient's ear twenty-one years previously, but all attempts at removal were ineffectual, and it was left to “work its way out.” Only recently a slight deafness led to the discovery of the foreign body. It was extracted by means of a fine silver wire snare, and found to be shrivelled up and coated with desquamated epidermis.

Dundas Grant.

Lake, R. (London).—*Localized Inflammation of the Posterior Superior Quadrant of the Tympanic Cavity.* “Lancet,” May 27, 1893.

THE effusion in this part is apt to be pent up by adhesions between the incus, stapedius, and other structures. The membrane bulges locally. He recommends incision and irrigation through the Eustachian tube by means of a catheter with a one-sixth per cent. salt solution.

Dundas Grant.

Sheild, Marmaduke (London).—*Cholesteatoma of the Mastoid Cells.* “Lancet,” May 13, 1893.

AFTER a *résumé* of the various views as to the nature of aural cholesteatoma, Mr. Sheild concludes that the true mastoid cholesteatoma is not a neoplasm in the strict sense of the word, but is due to the accumulation of many generations of squamous epithelium which are successively shed. The epithelium grows into the mastoid antrum or cells from the auditory canal or tympanum through an opening previously caused by carious and necrotic processes. By their increase they cause pressure-absorption of the walls of the cavities. The rare cases in which no history of chronic suppuration has been obtained are probably instances of deep-seated dermoid cysts. A typical case of cholesteatoma is narrated. [The subject has been frequently handled in the abstracts in this Journal.]

Dundas Grant.

Sumpter, W. J. Ernely (Sheringham), and **Snow, Herbert** (London).—*Epithelioma of both External Ears.* “Lancet,” April 18 and 22, 1893.

A PATIENT, aged seventy-six, consulted the author nine months ago for a slight ulceration of both ears, which had begun two years previously as a small blister. The ulcer on the right ear began to extend later, and took on the character of epithelioma. The left remained unchanged. Operation was refused by the patient. A “cancer” had been removed from the lip nine years before. Dr. Snow looks on the case as having been primarily one of eczema, and that on the right ear alone was there epithelioma. The case was, therefore, not one of epithelioma of *both* external ears.

Dundas Grant.

REVIEW.

The Throat and Nose, and their Diseases. By LENNOX BROWNE. 4th edition.

THE very fact that Mr. Browne's book has already passed through three editions shows the demand it has established for itself, largely due to the name of the author in the first instance there can be no doubt; also it shows a desire to keep the book—to use a slipshod vulgarism—up to date. This desire is a most commendable and necessary one, now that every few months sees some new method or theory advanced for treatment or diagnosis.

Mr. Browne gives a very full and clear description of the methods of examination of the throat, tabulating his various points of advice and warning in an extremely practical way, and one well calculated to materially assist the beginner and to afford useful hints to teachers.

On page 71 Mr. Browne gives some very interesting sketches of the palate in singing, which are well worth some attention. In discussing any disease, he adopts the very useful system of printing the headings and important points in larger type than that used for the rest of the book.

Mr. Browne would have done better to have separated quinsy from acute tonsillitis, as, though the former is generally a sequence of the latter, it is an abscess in the loose areolar tissue, deep and external to the gland itself.

On page 242 there is a strong protest against the term "follicular" tonsillitis, suggesting "lacunar" as a more correct and less misleading term, though perhaps "cryptic" is better from an anatomical standpoint.

It is a pity that there was not more attention paid to the woodcuts, as really quite a large number have suffered from being badly printed.

On page 237 Mr. Browne says, referring to a case of bifid uvula, "the hard palate was very contracted and highly arched, but *no* difficulty had been experienced in either articulation or deglutition. Removal was followed by relief . . . and with improvement to both speech and deglutition." This reads somewhat like a contradiction.

The prevailing vegetable parasite of tonsillo-mycosis is described as leptothrix, but it is extremely doubtful whether gladothrix is not more frequently the offender.

The absence of the knee jerk in diphtheritic paralysis is unfortunately omitted, as is the importance of cultivation of the bacillus as a means of diagnosis; and it is a pity that no simple method of doing so is mentioned, as of all bacilli this is one of the easiest to grow.

On page 455 one of the reasons for abridging the details of the use of instruments in removing intra-laryngeal growths is "because the cautions then given (third edition) being now more generally appreciated," seems rather short-sighted if the book is for

students as well as practitioners, as implied by the preface, nor does the following seem safe advice for the embryonic laryngologist : "If "anæsthesia is not complete the larynx closes round the instrument, and "the surgeon will have to trust to his previously ascertained knowledge "of the position of the growth as to whether he passes his snare to the "right," etc. One can almost appreciate the fact (?) that the nose has been treated for acute articular rheumatism when one emerges from the list of ailments relieved by rhinological treatment here described, and one would hardly call hernia a characteristic of nose and naso-pharyngeal obstruction.

It is a pity the proofs have been hurried over, or else in Case 3, on page 527, it would not still be "too early to speak of result," considering this has appeared in each edition. After these few strictures one feels that the book is one which has done and will do good work, and will well repay the reading.

R. Lake.

ASSOCIATION MEETINGS.

AMERICAN OTOLOGICAL SOCIETY.

*Twenty-sixth Annual Meeting, held at the Fort Griswold House, New London,
Conn., July 13, 1893.*

MORNING SESSION.

The Society was called to order by the President, Dr. Gorham Bacon, of New York.

The Comparative Anatomy of the Ossicles.—The first paper was one with this title, read by Dr. LUCIEN HOWE (Buffalo, N.Y.).

As comparative anatomy frequently gives important hints concerning the function of different portions of our bodies, the author had examined various works on comparative anatomy for facts in regard to the ossicles in various animals. Finding that very little had been done in this direction, he had made some effort to obtain the ossicles from animals of widely different species. Attention was called to the following peculiarities, which had been noted in these observations:—

1st. As to the processus longus of the malleus, concerning which there is some difference of opinion. Gruber has described this process as bony in early life, considering that later it degenerates into connective tissue, and is then to be regarded as a ligament. A study of comparative anatomy appears to indicate that this is the true view, for in one or two we find the long process persisting as a true bone.

2nd. Concerning the malleo-incudal joint. Helmholtz has described this joint with much detail, and holds that in the human being rotation in one direction is practically unlimited, while in the other direction it is suddenly arrested. These observations have been verified by the author in the orang and some of the higher air-breathing animals.

3rd. It is worthy of note that the form of the hammer and anvil differ very greatly, not only in different genera but also in individuals of nearly allied families. On the other hand, the stapes is remarkable in having almost always a certain approach to the stirrup form.

The author presented these observations on account of their possible intrinsic interest, and also with the hope that future observations may throw light on certain obscure questions regarding the physiology and pathology of the bones of the middle ear.

The Strongly Counter-irritant Effects of the Usual Mastoid Operation was the title of a paper read by Dr. ALBERT H. BUCK (New York).

The main object kept before the mind of the surgeon in opening into the mastoid process is the establishment of a free channel between the outer world and the centre of disease, which latter, in most instances, is situated either in some part of the middle ear or in the mastoid bone itself. Through this channel the products of inflammation find a much easier way of escape than by any route that Nature may establish through ulcerative action, and through it, besides, the surgeon is able to introduce such remedial or mere cleansing fluids as he may think likely to exert a curative effect. But in certain cases, and they are by no means rare, the good effects of the operation are not confined to the benefits directly attributable to good drainage and thorough cleansing of the parts ; the derivative or counter-irritant influence of the operation plays, I believe, a very important part in effecting a cure of these cases, and it is for the purpose of directing attention to this point that I have prepared the present paper.

Setons and issues were looked upon as valuable therapeutic agents even so recently as twenty-five years ago, but nowadays one scarcely ever hears them mentioned. In operating upon the mastoid we may establish an issue on a comparatively large scale. A gaping wound, two or three inches in length, is made in the skin, and a pit large enough to admit the end of a forefinger is excavated in the underlying bone itself. This deep excavation may be left gaping, and afterwards, for a time at least, be treated as an open wound. When this course is adopted, we have all the essential conditions of a large issue ; and if there be any virtue in the principle of counter-irritation, the beneficial effects that flow from it will be provided in liberal measure to the patient thus operated upon. On the other hand, if the edges of this gaping wound are stitched together in accurate coaptation, only a small outlet for the discharge being left at the lower angle, and then, if, in addition, such dressings are applied that no micro-organisms can by any possibility find an entrance into the wound, our patient will certainly be deprived in large measure, if not wholly, of whatever good effects counter-irritation is competent to supply. In the majority of cases, as I have already intimated, the disease will be cured without the aid of such additional counter-irritation, but in those cases in which the disease of the ear has set up more or less active intra-cranial inflammation this counter-irritant power may be sufficient to turn the scale from a fatal to a favourable issue.

While I cannot hope to furnish from my case-book convincing proofs

of the correctness of this doctrine, I believe that the histories of the following three cases will go far towards establishing its soundness :—

Case I. : The patient, a vigorous man, about thirty-eight years of age, consulted me in March, 1890, for the relief of a discharge from the left ear, of at least thirty years' standing. Apart from the discharge and some impairment of the hearing, the ear, he said, had given him no trouble until within a few days, when a certain amount of bleeding became associated with the discharge, and had continued since. On examination I found the left external auditory canal filled with a large and very vascular polypoid growth. I removed it with the snare, and found that it sprang from what was left of the drum membrane, in the neighbourhood of the hammer. I recommended the daily use of Angelo's ear-douche, and under this *régime* the ear gave him no further trouble during the subsequent three years.

On April 15th or 16th of the present year he sat at an open window, with a current of air blowing upon the left side of the head. Soon afterwards the ear became painful, and the pain continued to increase steadily until the 18th, when he called upon me to obtain relief. On examination I found that the upper cutaneous wall of the left external auditory canal was markedly prolapsed. There was a scanty, rather thin, pinkish, foul-smelling discharge in the canal. The body-temperature was 103° F., and the pulse 102. The pain was referred to the deeper parts of the ear, and to the whole left side of the head. There was no tenderness over the mastoid region.

The treatment adopted, and carried out by my associate, Dr. Robert Lewis, was the following : A free, curving incision was made across the cutaneous wall of the canal at the point of greatest prolapse, and through this opening a slightly curved silver canula was introduced. Through this a stream of a 1 to 4000 bichloride of mercury solution was forced by air pressure generated through the instrumentality of a rubber foot-bag. This irrigation brought away an appreciable quantity of foul, cheesy material ; the stream apparently escaping directly from the middle ear. Three leeches were also applied behind and below the ear, as close as possible to the auricle ; and the patient was instructed to have hot flax-seed poultices applied continuously for three hours. Internally, he was given one grain of calomel, to be followed, the next morning early, by a full dose of Rubinat Condal water.

On April 19th the patient was found to have less pain, and the temperature had fallen to 102° F. The probe, passed through the opening in the prolapsed portion of the wall of the canal, encountered everywhere roughened bone. Dr. Lewis therefore attempted, by passing a small-sized Volkmann's spoon (bowl = 3 mm. in diameter) through the artificial opening, to gnaw away so much of the intervening ridge of bone—presumably carious—that the stream of water from his canula would play directly upon the contents of the antrum. In this he apparently succeeded, for in the subsequent washing he drove out considerable quantities of foul, cheesy material.

During the next two or three days all the local symptoms improved greatly. The discharge almost entirely lost its foul odour, the prolapsed

wall of the canal returned to its natural position, the temperature and pulse became nearly normal, and the pain had very decidedly diminished in severity. The appetite, however, did not return, and the patient showed no desire to leave his bed. His tongue also remained heavily coated. The urine had been examined by his regular medical attendant, Dr. Samuel K. Lyon, and found to be normal.

On April 25th the temperature again rose to 103° F., and the patient seemed to have passed into a state of semi-stupor. As the ear had improved so markedly, it was thought that there might be a malarial element underlying the rise in temperature and the mental hebetude. Accordingly quinine was administered in divided doses until he had taken, during the twenty-four hours, twenty grains. An ice-cap was also kept constantly applied to his head. These measures produced no perceptible effect upon either the temperature or the drowsiness, and at the suggestion of his physician he was given two doses (about four hours apart from the one from the other) of the hydrobromide of hyoscine, $\frac{1}{20}$ grain in each dose. This was on April 26th.

On April 27th the patient was found to be greatly improved in every way. The temperature had fallen to normal. The drowsiness had disappeared, the dusky colour of his face had changed to a natural ruddy hue. His eyes were bright. He asked for food. In a word, he seemed at last to be on the high road to getting well.

The visible parts of the ear having shown no signs of inflammatory action for at least three or four days, and apparently not requiring any other treatment than the frequent use of the warm douche with a very weak sublimate solution, the patient was left in charge of his regular attendant.

As we afterwards learned, the improvement noted above lasted only about twenty-four hours. The fever and drowsiness then returned, the right side of the body became paralyzed, and the patient died on the third or fourth day after we had last seen him.

This case is brought forward on account of the indirect testimony which it furnishes to the correctness of the statement that in those cases where the ear disease has already set up a certain amount of inflammation at the base of the brain, it is not sufficient to thoroughly drain and cleanse the original seat of the disease in the ear. Something more potent is required to bring about a subsidence of the deeper-seated inflammation, and this is to be found, I believe, in the counter-irritation furnished by the usual mastoid operation. In direct confirmation of this belief I will give the details of a second case, in which the local conditions of disease in the ear were very much the same as those noted in Case I, while the evidences of intra-cranial disease, at the time of the operation, were more pronounced—in fact, there was already well-marked paralysis on the opposite side of the body, and yet the patient recovered.

Case II. : The patient, a man twenty-two years of age, and of good general health, consulted me at my office on January 7th, 1893, on account of long-standing trouble in the left ear. He gave the following history :

There had been a discharge from the left ear since childhood, and on

several occasions he had experienced pain in the ear, lasting perhaps for two or three days and then passing off. The last of these attacks had occurred during the previous November and had been of unusual severity. From that time to the present he had experienced a great deal of dizziness, and at times he had felt decidedly chilly, without having, however, a distinct chill. At other times he had felt feverish. The discharge, during this period, had remained unchanged in quantity, but from time to time he had found it streaked with blood. His general health had deteriorated appreciably during this period, and he had lost flesh to the extent of twenty pounds. Quite recently there had developed a new symptom which had given his family some alarm. I refer to the sensation, observed on the right side, of walking on cushions. His gait, too, had become somewhat unsteady, through inability to perfectly control the motions of the right leg.

When the patient called at my office I observed that he dragged the right leg a little, and that he presented the facial aspect of one who was seriously ill. An examination of the ear revealed the existence of a large polypoid mass which nearly filled the left external auditory canal. After it had been removed, it was found that an opening into the tympanic cavity existed in the vicinity of Shrapnell's membrane. A slender probe was introduced, but no exposed bone was encountered. Hyperostosis of the inner half of the external auditory canal concealed a large part of the drum membrane. The odour of the discharge coming through the sinus was very offensive. There was no tenderness or redness at any point in the immediate neighbourhood of the ear. Mastoid operation advised.

On January 10th, three days later, I found the patient, at his home in the country, materially worse. There was a moderate elevation of temperature (about $101\cdot5^{\circ}$ F.), and his pulse varied from 100 to 110 beats per minute, being at the same time quite weak. He had scarcely any power over the movements of the right leg, and he expressed himself as feeling very ill. Shortly afterwards he had a distinct chill.

Ether was administered, and the operation of opening into the mastoid antrum was performed in the usual manner. The bone was found to be everywhere of ivory-like consistence, requiring considerable force of the mallet to drive the chisel through it. Volkmann's spoons proved to be of no use until the antrum had actually been reached. They were then used in enlarging the opening into this cavity. By repeated injections of a warm 1 to 4000 bichloride of mercury solution, and by the frequent employment of the slender middle-ear probe, which was pushed as far as possible in all directions, the cavities of the middle ear were finally cleared of their foul, cheesy contents. It was surprising how large a quantity of this material was stowed away in this comparatively small space. A careful exploration was made for the purpose of ascertaining whether, through destructive ulceration, an opening had not been established in the bony tegmen tympani. No such opening, however, could be found.

The edges of the wound were left gaping; iodoform gauze dressings were applied; and daily cleansing of the parts constituted the essential feature of the after-treatment. (The patient was under the care of Dr. T. H. Andress, of Sparta, N.J.) About the fifth or sixth day, when it

was found that the case was progressing favourably in every respect, the edges of the granulating wound were approximated by means of a silver suture, which had been put in place (ready to be utilized at some later date) at the time of the operation. On February 16th, five weeks after the operation, the patient called to see me at my office. The external wound had entirely healed, but there was still a very slight discharge from the external auditory canal. All pain in the ear and head had disappeared, and the right leg had returned to an entirely normal condition. His general health was excellent.

In the following case, thanks to an error which I made in the diagnosis, I am warranted in excluding wholly from consideration the possible effects of drainage and cleansing upon the favourable course produced by the obscure deeper-lying disease. Absolutely no ear disease whatever was found to exist in this case at the time of the operation, and consequently, in weighing the therapeutic effects of the latter, we are perfectly justified in speaking of it as an issue pure and simple. The history of the case is as follows :—

Case III. : The patient, a lady about fifty years of age, and, up to the time of the attack, in good general health, contracted a bad cold in the head early in April, 1892. This was soon followed by tinnitus and pain in the left ear, and impairment of the hearing. The pain resisted the ordinary measures employed for its relief, and gradually increased in severity. It involved the entire left side of the head, but was referred more particularly to the mastoid region. When the patient was seen by Dr. Thomas E. Satterthwaite, about May 1st, he found decided swelling and tenderness of the auricle and neighbouring soft parts ; the motions of the jaw caused pain in the left ear ; the glands on the side of the neck, below the ear, were swollen ; and there was a tense swelling on the posterior wall of the pharynx, behind the left tonsil. An incision of this swelling afforded escape to a considerable quantity of creamy pus. The posterior wall of the left external auditory canal was found to be swollen, and an incision in this region also gave vent to a certain amount of pus. From this time onward, for a period of nearly three weeks, the patient experienced comparatively little pain in the ear or in any part of the head. The hearing on the left side soon returned to a fairly normal condition. Pus, however, continued to escape from the opening in the posterior pharyngeal wall, and the patient steadily grew weaker. The constant escape of pus into the fauces rendered her less and less desirous to take food. In fact, she had to be coaxed a great deal before she could be induced to take the necessary amount of nourishment. It was observed, too, that her mind was beginning to be perceptibly affected, and the pupil of the left eye was noticeably larger than that of the right. The body temperature did not at any time during her illness rise above 99.5° F. The pulse rate was about 80, and the pulsations, as might be expected, were feeble.

About May 20th she was seen by Dr. Robert Abbe, of this city. He was disposed to refer the source of the pus, which continued to flow abundantly from the opening in the pharyngeal wall, to disease of the sphenoid bone. He advised against operative interference. Shortly

after this the patient again began to complain of pain in the left mastoid region, and it was found that the hearing of the left ear had again become somewhat affected. There was also some redness of the skin behind the left ear, together with slight tenderness on pressure. As these symptoms persisted I was asked (on May 26th) to see the case in consultation with Dr. Satterthwaite, and Dr. Terhune, of Passaic, N.J. I found the patient in a condition of semi-stupor; whether from simple physical weakness or not, I could not determine. Her pulse was 80, and decidedly weak. There seemed to be some redness and swelling of the left mastoid integuments, but as a blister had been applied over the lower part of the process, and some distance below it, two or three days previously, I could not feel sure of the correctness of my observation. The external auditory canal and the membrana tympani were entirely free from any evidence whatsoever of inflammatory action. The spitting-cup, filled with water, was shown to me, and in it, floating as a separate mass, was about a tablespoonful of thick yellow pus. This represented, I was told, the entire quantity that the patient had spat out during the previous twenty-four hours. An examination of the pharynx revealed no points of special interest. The exact spot from which the pus escaped could not be verified by mere ocular inspection.

In the presence of such conflicting evidence—a history pointing strongly to the left ear as the primary seat of all the trouble, and yet, at the time of my examination, an almost entire absence of any recognizable disturbance in that ear—I felt considerable hesitation about putting forward even a diagnosis of probabilities. Nevertheless, from the sequence of pathological events, and especially from the recent return of mastoid pain and tenderness, I felt disposed to believe that there was still, in the substance of the mastoid process, a small remaining centre of osteitis, the purulent products of which were escaping through some opening in the under part of the process, presumably in the vicinity of the digastric fosse, and were seeking an outlet through the unhealed opening made with the knife in the post-pharyngeal abscess. This centre, I assumed, must necessarily be somewhat removed from the mastoid antrum, and from that part of the process which constitutes the posterior wall of the external auditory canal; for otherwise it would have betrayed its existence by redness or swelling of the soft parts of this canal, both of which conditions (as already stated) were absent. I further argued that if, perchance, this diagnosis should prove to be correct, the more direct drainage and ultimate healing of this centre of mastoid inflammation, which we might reasonably expect to obtain by an operation, would in all probability cause the post-pharyngeal abscess to heal.

On the following day, May 27th, the operation was performed. A curving incision, about two and a half inches in length, was made through the skin and periosteum, the outer surface of the mastoid bone was freely exposed, and by means of the chisel and mallet and Volkmann's spoons a large part of the bone substance lying external to the antrum was removed. Not a trace of anything like diseased bone was found, either in the main body of the bony prominence or in the direction of its tip, a large part of which was removed with Volkmann's spoons. There

was not even any recognizable congestion of these parts. In a word, the mastoid was found to be in a perfectly healthy condition.

The edges of the wound were left gaping, and simple iodoform gauze dressings were applied. From this time forward the patient, who remained under the care of her regular attendant at first, and then for a brief period under that of my associate, Dr. Robert Lewis, improved steadily, though not rapidly. In the course of from four to five weeks the outside wound had healed, the discharge from the post-pharyngeal abscess had ceased, the mental disturbances had disappeared, and she had fully regained her general health and strength.

By way of summing up, let me rehearse briefly the salient distinguishing features of the foregoing three cases. In the first two it is highly probable that the intra-cranial lesions were very nearly alike in extent and intensity. In the one the original centre of carious bone, with its accumulation of foul *débris*, was effectively cleansed and drained, and yet the intra-cranial disease pursued its course to a fatal termination without manifesting any but a transient tendency to quiet down under the influence of this drainage and cleansing. It had acquired so great an independent momentum that it no longer needed, for a continuance of its harmful course, the stimulus of the adjacent centre of middle-ear disease. The same remarks, I believe, apply with equal correctness to the second case. Here, too, the original centre of carious bone disease in the middle ear was drained and cleansed, but the intra-cranial disease, instead of growing worse, underwent a steady and permanent change for the better. To what shall we attribute this favourable change if not to the powerful counter-irritant effect furnished by the presence of an extensive issue in the immediate neighbourhood?

Finally, in the third case, the conditions of our problems in therapeutics are rendered peculiarly simple by the entire absence, so far as could be ascertained, of any centre of disease in the middle ear or mastoid bone. In this case, therefore, the establishment of an issue pure and simple is the only therapeutic procedure of which there can be any question. Indisputable, too, is the existence of some deep-seated and serious disease; whether at the base of the brain, or in the sphenoid bone, or where, is just now a matter of no special importance. The patient's full and, on the whole, rather quick recovery completes the series of facts. Do they not warrant the conclusion that counter-irritation, in the form of an extensive issue, effected the cure obtained in this case?

Dr. SAMUEL THEOBALD Baltimore, said that the view of Dr. Buck was borne out in many cases in which the mastoid is opened and no pus found, and in which pus does not subsequently make its appearance, but yet the case is greatly benefited by operation. These cases sustained the view that much of the benefit is due to the counter-irritant effect.

Dr. H. KNAPP (New York) did not clearly understand what was meant by the revulsive or counter-irritant effect of the operation. In many cases there is simply a congestive mastoiditis. At the operation nothing but blood is found, but the result is almost always satisfactory.

In regard to the extension of the suppurative process to the brain, the

speaker believed that when we destroy the source of the suppuration we act beneficially upon the extension of it. He thought that in many cases when the mastoid was opened, the cranial cavity opened, and the lateral sinus and jugular vein explored, a great deal of the good effect might have been obtained by simple opening of the mastoid without such extensive operation, especially if there is no great septic condition.

Extensive Caries and Necrosis of the Temporal Bone of a Child; Mastoid Operation; Death from Exhaustion and Hæmorrhage.

Dr. HERMAN KNAPP (New York) read the paper. The patient, a feeble, anaemic child, came under observation on April 28th, 1893. For a few months there had been copious and offensive otorrhœa of the left side. The mastoid region was swollen and soft, but no fluctuation was present.

May 1st : The mastoid was exposed ; there was no sub-peritoneal collection of pus. The outer table of the mastoid was removed, with the exposure of a large cavity filled with necrosed bone and granulations bathed in pus. This was removed and the cavity packed with corrosive sublimate gauze. The child improved to some extent, but there was no tendency to repair. Some time later, and a week before death, the probe revealed that the posterior wall of the bony portion of the external ear canal had begun to loosen itself, but it was too firmly attached to permit extraction.

On July 3rd the ear was carefully probed. This was followed by escape of some dark blood, as had occurred at previous examinations. The wound was dressed and the child went home. During the night there was a continuance of the bleeding, and the child died the following morning. It was impossible to obtain an autopsy. The amount of blood lost did not seem great enough to have caused death ; but in the precarious condition of the child it may have hastened the fatal result.

A Case of Chronic Middle-Ear Suppuration with Grave Brain and Lung Complications; Opening of the Mastoid and Wounding of Lateral Sinus; Complete Recovery.

Dr. KNAPP (New York) also reported the following case :—On December 22nd, 1892, Mrs. H., aged thirty-eight, came under observation, complaining of pain, discharge, and deafness in the left ear. There had been occasional attacks of inflammation during the past year. The upper posterior part of the drum membrane was red and bulging, and there was a large perforation in the lower part. There was also catarrhal rhinitis. Appropriate treatment was advised, and during the next three months the condition fluctuated considerably. On three occasions the condition became so aggravated that exploratory operation was decided on : but on each occasion sudden improvement occurred and operation was not done.

March 27th : The disease took a more serious turn. There was pain in the head, and swelling and tenderness of the mastoid, and pain on percussion about two inches back of the ear. Operation on mastoid was advised, but delayed at the request of the patient on account of the advent of menstruation.

April 13th : There was severe pain in the head, delirium, with chill and vomiting, and complaint of discomfort in the chest. Pulse, 120 ; respiration, 30 ; temperature, 104° F. There was no discharge from the ear. The mastoid was red and tender. The optic disc was hyperemic and swollen. There were no physical signs of involvement of the lung. The possibility of the lung complication being due to the ear disease led to operation on the mastoid. No pus or diseased bone was found. The bone was softer and more vascular the deeper the operation went. Chiselling still deeper, there was a sudden gush of dark blood. This ceased after a minute's pressure, and the cavity was packed with corrosive sublimate gauze. The ear showed no reaction, but for a week the patient was in a critical condition from the lung complication, which was declared to be a pleuro-pneumonia. From the ninth day after operation the patient improved steadily and made a complete recovery. In reviewing the case, it was thought that the otic disease was the origin of the difficulty, and that the inflammation passed into the skull through the roof of the drum cavity.

Dr. J. ORNE GREEN (Boston) thought that in some cases where haemorrhage is attributable to the opening of the lateral sinus the blood does not come from that source. He had had two cases in which he satisfied himself that the free escape of blood did not come from the lateral sinus. A probe demonstrated a cavity with a complete bony wall. The great haemorrhage in these two cases was attributed to the opening of a large diploic vein.

Autopsies in Two Cases of Complicated Middle-Ear Disease.

Dr. T. Y. SUTPHEN (Newark, N.J.) reported the following cases :—

Case I. : Man, aged thirty, had immense abscess involving the left mastoid region. This was opened. There was a long history of middle-ear suppuration. Two days later, when the author first saw the case, the mastoid was found extensively carious. During the next few days the patient became worse, with development of cough, elevated temperature, and dulness over the right side of the chest. In a week he died in coma.

Autopsy showed an abscess canal outside of dura mater, extending to the cerebellum, where it penetrated the dura and ended in abscess in the brain tissue, having adjacent to it other spots of softened tissue. There were also the lesions of a septic pleuro-pneumonia.

Case II. : Case of right middle-ear inflammation lasting several weeks. For ten days there had been severe headache on the right side. No swelling or tenderness over mastoid. No paralysis. Three days later the patient became comatose, with temperature of 104° F. The following day the mastoid was opened, but no pus was found. The patient died the next morning.

The autopsy showed no communication between the mastoid and the cranial cavity. The meningeal space contained a quantity of seropurulent fluid. The right lateral sinus contained a large softened clot communicating with the meningeal cavity. The entire meningeal surface of the cerebellum was bathed in pus. No abscess was found in the brain substance.

Fatal Thrombosis of the Lateral Sinus, with Autopsy.

Dr. EMIL GRUENING (New York) reported the case of a woman, aged thirty-eight, who had occasional discharge from the left ear for six years. Two months before coming for treatment profuse discharge set in and continued. There were two perforations in the drum membrane, and the mastoid region was red, swollen, and œdematosus. The ordinary mastoid operation was done, and pus and granulation tissue found. The lateral sinus was exposed, but it did not pulsate. Four days later pyæmic symptoms manifested themselves, with marked and sudden variations in temperature. There were also evidences of lobar pneumonia. The patient died, and autopsy revealed pneumonia and thrombosis of the lateral sinus.

The Statistics of the Aural Department of the Massachusetts Eye and Ear Infirmary were presented by Dr. CLARENCE J. BLAKE (Boston).

They were for the three months, April, May, and June, 1893. The total number of patients seen during this time was 7685. Of this number 1414 were new patients. The cases were classified in tabular form, according to the disease present, under the following heads : (1) Morbi auris externæ ; (2) morbi auris mediae ; (3) morbi labyrinthi et acustici ; (4) morbi nasi et naso-pharyngis : and morbi et operationes. The total number of operations done was 208.

Detailed reports of a number of the more interesting cases were given.

AFTERNOON SESSION.

Dr. J. ORNE GREEN (Boston) exhibited a large number of pathological specimens of ear disease, and gave reports of the cases.

Stapedectomy and other Middle-Ear Operations was the title of a paper by Dr. CLARENCE J. BLAKE (Boston).

During the past year the author had investigated the question of the possibility and advisability of the extraction of the stapes in chronic non-suppurative disease of the middle ear. As a result of the investigation the following conclusions seemed justified : That in those cases of non-suppurative disease of the middle ear, with a high degree of deafness, the operation of stapedectomy is most likely to be futile, because of the degree of fixation of the base of the stapes, leading to fracture of the crura in the attempts at removal.

That in the class of cases where stapedectomy has apparently given the best results, viz., fixation of the stapes as a sequence of chronic suppurative disease, it is by no means certain that equally good results could not have been obtained by surgical mobilization and subsequent care.

That while removal of the stapes is by no means so hazardous a procedure, it still opens up the possibility of interference to an unknown degree with the most important part of the organ of hearing, and an almost equally important peripheral organ of equilibrium.

In order that the operator might, in the non-suppurative cases, avail himself of the co-operation of the patient, and apply, in the progress of the operation, a series of hearing tests to determine the location of the

principal obstacle to sound transmission, and determine the extent to which surgical interference was advisable, the plan of "exploratory tympanotomy" was devised. The speaker prefers, when possible, in cases of non-suppurative disease of the middle ear, to begin with exploratory tympanotomy, which is an operation without general anaesthesia, leaving it to be determined by the examination and tests made during the operation as to whether the stapes can or shall be removed or not. In suppurative cases he prefers first doing synæctomy, tenotomy, and crural circumcision, with, if necessary, the additional application of an artificial drum, allowing a proper time limit for the determination of the effectiveness of these procedures before submitting the patient to the final operation of stapedectomy.

Observations on the Removal of the Stapes.

Dr. FREDERICK L. JACK (Boston) presented a paper supplementary to the one he had read at the last annual meeting. Since bringing the matter before the Society last year, the operation had been tried in thirty-two additional cases. These, with the sixteen previously reported, furnish forty-eight cases for observation and study. In reviewing the cases there is much to encourage the adoption of the procedure, but its clinical application will require modification.

The following conclusions were presented :—

1. The operation is followed by the best results in the class of cases where, from the increase of time, the effects of suppuration, or hypertrophic inflammation, the stapes offer an obstruction to sound-waves ; by its removal the hearing is improved. The results in cases of otitis media chronica insidiosa, on account of failure to extract the foot-plate, are not encouraging.
2. Inflammatory reaction is unusual, and followed by no bad results.
3. The hearing is not necessarily impaired by the subsequent growth of a thin cicatricial membrane over the fenestral niche.
4. Some cases of tinnitus and aural vertigo are relieved, and there is little chance of causing permanent vertigo in cases where it had not previously existed.
5. It rarely happens that a patient improves for all tones. Improvement in hearing the human voice was out of proportion to the improvement for other sounds, and the reverse sometimes occurred.
6. Failure of success in some cases may be due to haemorrhage into the labyrinth at the time of the operation. It is believed to be a rare complication, but was thought to have occurred in one or two cases.
7. In removing the various ossicles, the stapes, if found diseased, should also be removed.

The Surgical Treatment of so-called Ménieré's Disease (Aural Vertigo).

Dr. C. H. BURNETT (Philadelphia) maintained that the name "Ménieré's disease" is inaccurate and unjust. It is inaccurate, because it is indiscriminately applied to all forms of aural vertigo, regardless of the seat of otic lesion ; whereas Ménieré attempted to prove the existence

of a disease of the semi-circular canals as the only cause of aural vertigo—an entirely untenable hypothesis.

The name is unjust, because Flourens in 1822, and Deleau in 1836, described aural vertigo more accurately than Ménière in 1861, and Deleau came much nearer than any previous observer to the solution of the origin of aural vertigo in placing the cause in lesions of the middle ear. Ménière's observations of a case of aural vertigo, in which, owing to the sudden death of the patient, he is said to have made a *post-mortem* examination of the temporal bone, revealed nothing more than any roughly and rapidly made dissection of this bone would do—viz., pinkish serum in the semi-circular canals. It proved absolutely nothing as to the cause of aural vertigo observed before death, and has led to great confusion in diagnosis and error in treatment of ear-vertigo. In fact, there is no such phenomenon as "Ménière's disease," as commonly spoken of by the general profession.

Aural vertigo, on the other hand, due to lesions in the middle ear, is of very frequent occurrence. It is often not recognized, especially by the general practitioner, as aural vertigo, nor even as the so-called Ménière's disease, in which, to say the least, the cause of the vertigo is placed in the auditory apparatus. It is not unusual for aural vertigo to be attributed to intestinal disturbance, or to neurasthenia, instead of to an aural lesion. Hence, the diagnosis being erroneous at the outset, the treatment is wrong and the patients do not recover.

True aural vertigo, due to a lesion in the middle ear, chiefly from chronic catarrh of the tympanic cavity, is paroxysmal in character, and attended with tinnitus and deafness in the affected ear. It is caused by the inward pressure exerted upon the labyrinth-fluid by the retracted and ankylosed ossicles. The foot-plate of the stapes is thus unduly pressed into the oval window and there held by the above-named forces, paroxysmally and for longer or shorter periods.

The treatment consists in removing the retractive force and liberating the stapes, preferably done by the surgical removal of the incus. This bonelet, the incus, which in its relation to the other two auditory ossicles may be likened to a keystone in an arch, when removed, destroys the so-called arch, and the retractive and impactive power of the malleus can never again be exerted upon the stapes. This liberates the stapes, which furthermore is now pulled outward by the stapedius muscle, relieved of the antagonism of the tensor tympani.

Regarding the removal of the stapes from the oval window, it may be said that it does not seem that this operation is necessary for the relief of deafness or of aural vertigo, according to Dr. Burnett's experience. Liberation of the stapes, and not its entire removal, is all that is necessary in most cases. If the stapes be the "key to the situation," as it may indeed be, it seems wise to leave the key in the keyhole—the oval window.

That it is the liberation of the stapes in the oval window that effects the cure in aural vertigo would seem to have been demonstrated by a case reported by Dr. Burnett in 1888, at which time the explanation of the *modus operandi* in such cases was suggested by him.

Notes of several cases in which tinnitus aurium and aural vertigo had

been entirely cured by the surgical removal of one or more of the auditory ossicles were recorded in the paper.

On the Difficulty of Operation in the Depths of the Ear Canal.

Dr. ROBERT BARCLAY (St. Louis) read a paper with this title, and presented a description and drawing of new instruments for surmounting the difficulty. Deep operations within the ear have recently been found to have a much wider application than was previously supposed. The indications for such operations have already been formulated, and their *technique* already elaborated by Drs. Sexton, Burnett, Blake, and Jack. The problem which still remains unsolved is how to overcome the difficulty attending the performance of these operations. The difficulty is in large part due to the peculiar conformation of existent instruments—specula and shafts of blades. To obviate the objection belonging to the ordinary aural specula, the writer's new speculum for operations has been designed. This consists of two parts—a tube and a handle. The tube represents the inner portion of the ordinary speculum, divided obliquely at two-fifths its distance from the outer rim. The handle is detachable and is made in three forms : like a spoon-handle, fixed to the tube dipper-shaped ; like an imperfect ring, or like a split tailor's thimble. By means of the handle, the instrument is held in place by the finger or thumb, the rest of the hand being free : by dispensing with that portion of the speculum which projects beyond the intertragal notch of the ear, this instrument allows a hand rest for steadiness, and a maximum of shortening and of movement of instruments in operation within the ear.

Cases were cited where difficult, delicate, and dangerous operations had been done through this speculum. One was that of a large exostosis half an inch thick, lying within an eighth of an inch of the drumhead, which was removed, the drumhead escaping all injury. Another, that of an artificial auditory canal, a quarter of an inch in diameter, bored through a complete bony septum five-eighths of an inch thick.

The necessity for the most delicate and accurate manipulation of instruments in operations upon the deeper part of the ear, and the difficulty of satisfying it with instruments having the shaft and handle of existent patterns straight, once bent, or twice bent, with extremities parallel, had led the author to devise a shaft and handle so proportioned as to combine the desirable features of those already in use, without their defects. The essential features of the instrument are that the aluminium handle is of dimensions and weight most favourable to delicate and accurate manipulation ; it is twice bent, the long axis of the handle passing directly through the operative extremity of the operating shaft. The lateral shaft, joining the handle to the operating shaft, is of length only sufficient to permit the greatest illumination and vision along and beyond the operating shaft. The operating shaft is of the smallest dimensions possible, and is at right angles to the lateral shaft.

The instrument is made in two forms. In one the handle and shaft are in one piece ; in the other, the instrument is in two parts and separable, and interchangeable blades of such extremities as may be desired may be secured to the handle.

The author expressed the hope that those improvements will be of service to inventors, and also stimulate research in this field of aural surgery, while rendering more generally available the resources in the operations designed by Drs. Sexton, Burnett, Blake, and Jack.

Aural Reflex of Unusual Character due to Impacted Cerumen.

Dr. SAMUEL THEOBALD (Baltimore) related the case of a woman about forty-two years of age, the mother of a large family and of a non-nervous temperament, who had suffered for six months with an annoying cough and with spells of inability to swallow food. These symptoms increased in severity, and it was noticed that any manipulation of the right ear brought on the attack. A plug of cerumen, which probably had been forced down upon the tympanic membrane by unsuccessful attempts to remove it, was discovered in the right ear. It was removed by syringing, and all the unpleasant symptoms at once disappeared. Ear-cough is, of course, of not infrequent occurrence, but spells of inability to swallow, due to reflex aural irritation, are rare. Burnett, in his work upon the ear, states that both Senac and Jissot have described cases of this character.

The Statistics of Ear Disease.

Dr. B. ALEX. RANDALL (Philadelphia) presented a tabulation of the five thousand cases of his past four years' work in illustration of some points of the statistical reports of practice, the nomenclature being practically that offered by Dr. Spear, and the grouping into columns, giving the ear affected, the sex of the patient, and whether adult or child. In its explanation he urged the report according both to diseases and individuals, with such subdivisions as given, and that the attempt should be made to give the therapeutic results, as being a good aid to progress in treatment. The more elaborate the report made, the more it would compel fulness and accuracy of record, and thereby prove increasingly instructive to the practitioner himself as well as others.

Dr. GORHAM BACON (New York) exhibited a new form of incus hook devised by his assistant, Dr. Hewit.

A paper entitled "*A Contribution to the Brain Surgery of Ear Disease*," by Dr. THOMAS R. POOLEY (New York), was read by title.

The following gentlemen were elected to membership : Dr. Eduard B. Dench (New York); Dr. William Cowen (New York); Dr. John L. Adams (New York); Dr. Eduard Fridenberg (New York); Dr. W. H. Wilmer (Washington, D.C.).

ELECTION OF OFFICERS.

The officers for the ensuing year are : *President*, Dr. GORHAM BACON (New York); *Vice-President*, Dr. ARTHUR MATHEWSON (New York); *Secretary* and *Treasurer*, Dr. J. J. B. VERMYNE (New Bedford, Mass.).

The Society then adjourned.

THE BELGIAN SOCIETY OF OTOLGY AND LARYNGOLOGY.

Fourth Meeting, held in Brussels, June 4th, 1893.

President, Dr. EEMAN.

Reported by Dr. HICQUET (Brussels).

MOST of the Belgian specialists were present at this meeting, along with several visitors, amongst whom were Drs. Gouguenheim and Natier, of Paris ; Drs. Wagnier and Nocquet, of Lille ; Dr. Schuster, of Aix-la-Chapelle ; and Dr. Moll, of Arnheim.

Dr. EEMAN having opened the proceedings, exhibited some *Pathologico-Anatomical Specimens of the Larynx*.

1. *Cases of myxoma* having been contested, amongst others, by Schroetter, of Vienna, Eeman exhibited microscopic specimen, which established the existence of this affection. He had seen two cases, from which the specimens were taken.

2. *Fibro-myxoma*. He also exhibited (a) specimens of this more common variety of tumour, which was for long described as simple myxoma. (b) A pedunculated keratoid carcinoma, a form which some authors have considered to be common, but which is more rarely met with than diffuse infiltration. (c) A larynx constricted by cicatrices, which occurred in a young girl of nineteen, who died accidentally eight days after her dismissal from the hospital as completely cured. The affection began in an attack of scarlatina fourteen years previously, and the laryngeal symptoms gradually increased in intensity until she came under the care of Dr. Eeman. At the first examination considerable stridor was seen to be present, and an opening of only a few millimetres existed between the vocal cords. It was operated upon with Whistler's instrument, and dilating tubes were afterwards introduced.

Dr. EEMAN also showed for Dr. KOCH, of Luxemburg—

1. A piece of stone (1*4* by 3 by $\frac{1}{2}$ centimetres) extracted from the œsophagus of a patient by Graefe's forceps.

2. A fibro-sarcoma, of 4-5 centimetres in size, which had sprung from the ventricle of Morgagni, and was successfully removed by Scheinmann's forceps.

3. "Pates-medicaments" for fistula of the neck, consisting of an iron wire impregnated with the drug, and covered with gutta-percha where it was introduced into the fistula.

Dr. GORIS (Brussels) reported the case of a patient with *Ataxia, and Rebellious Neuralgia of the Nasal Alæ*, in whom he had obtained a cure by elongation and resection of the suborbital nerve. The affection had resisted sedatives and electricity. He also showed two patients upon whom he had operated for dermoid cysts of the floor of the mouth. In the first case the pedicle was strongly adherent to the middle of the lower jaw, and in the second case the place of implantation was the hyoid

bone. The cysts were as large as a mandarine. The operation was performed through external incision, which, according to Goris, presents great advantages both for the operator and anaesthetist.

Dr. GORIS also presented a patient in whom he had performed *Ablation of an Epithelioma of the Nose*, followed by rhinoplasty by means of a frontal flap. The frontal wound was covered by Thièrsch grafts, and the result was eminently satisfactory.

Dr. GORIS also reported a case of *Sudden Croup, with Abscess of the Larynx*, which necessitated tracheotomy, and was followed by death a few hours later. Examination of the false membranes revealed the presence of Loeffler's bacilli.

Dr. GEVAERT (Ghent) had operated upon a *Tumour of the Floor of the Mouth* through the mouth. He nearly lost his patient during narcosis, and remarked upon the difficulties of the operation performed in this manner.

He presented a patient upon whom he had operated seven years ago for a *Polypus of the Larynx*. For one year the patient had had complete aphonia and stridor. Between the vocal cords there was a diaphragm extending from the anterior angle of the glottis to the posterior third. After cocaineizing, separation of the vocal cords was effected by means of Mackenzie's guarded knife. After section dilatation was completed, and maintained by the passage of Stoerck's tracheal canula. Adhesion recurred only to a much smaller extent.

Dr. GEVAERT also showed a patient from whom he had removed by the galvano-cautery loop a voluminous *Tumour of the Nose*, completely obstructing the nasal fossæ and extending into the pharynx. After momentary alleviation, recurrence occurred. It was a fibro-sarcoma, which necessitated ablation of the jaw.

Dr. WAGNIER (Lille) had also removed a voluminous tumour of the nose by the galvanic loop. It was a fibro-myxoma, and there had been no recurrence.

Dr. BOVAL (Charleroi) presented a patient, aged fifteen, operated upon for a voluminous *Naso-Pharyngeal Polypus* occupying the pharyngeal cavity. Not being able to snare the growth with a loop, he had recourse to electrolysis, combined with tearing by Collins' forceps. Nasal respiration was re-established.

Dr. BOVAL also reported eleven cases of *Injection of Liquid Vaseline*, as devised by Dr. Delstanche, in cases of *Acute and Sub-Acute Otitis*. He has found this method produce from the commencement of its application an amelioration more persistent and lasting than catheterism, and it often dispenses with paracentesis.

Dr. BOVAL exhibited a *Piece of Caoutchouc, which had remained in the Nasal Passages of a patient for three years*. It had produced atrophy of the lower turbinated and ozaena.

Dr. EEMAN considered the treatment of acute otitis by liquid vaseline to be the best method.

Dr. NOQUET (Lille) remarked that it was not only beneficial in acute otitis, but also in chronic forms.

Dr. EEMAN, in a case of extensive synechiæ, had seen under this treatment hearing improve from 15 centimètres to 3 metres, and had observed the cleansing of the membrane.

Dr. MOLL (Arnhem) had been equally satisfied with vaseline injections in acute otitis.

Dr. NATIER (Paris) said that Delstanche's treatment had given him remarkable results in two cases of sclerous otitis, consecutive to influenza, with vertigo and pain in the first case, and gyratory vertigo in the second case.

Dr. DELSTANCHE said that he used a soft paste of vaseline and iodoform, which he injected through the catheter. When there was a moderate exudation the vaseline penetrated into the tympanum, and the exudation was driven towards the Eustachian tube or the mastoid cells, and the method appeared to him to prevent the necessity of paracentesis.

Dr. CHEVAL read a paper upon the *Treatment of Deviations of the Septum by Electrolysis*. He had devised the bipolar method. The number of needles employed varied according to the extent of the deviation. In order to have a constant and sufficiently powerful source of electricity he employed accumulators. It is indispensable to have a good milliampérator, and a rheostat is necessary to avoid shocks. He preferred a rheostat made of carbon discs. He used steel insulated needles, which he buried as deeply as possible into the mass to be removed. Caoutchouc was employed for insulation.

Dr. NOQUET (Lille) remarked that Moure and Bergonié also advised the bipolar method, accumulators and a perfected rheostat, and the galvano-meter of d'Arsonval.

Dr. CAPART (Brussels) had used the bipolar method—using two needles combined into one instrument, analogous to nasal cauteries, of which the points were separate and distant about one centimètre from each other. They were 1 centimètre long.

Dr. BOVAL feared the perforation of the septum, which was so often produced by electrolysis. He preferred to use a method which he had seen Chatellier employ. Over the portion to be removed a piece of mucous membrane is detached from below upwards, which afterwards falls into place after the cartilage has been removed by scissors.

Dr. DELIE (Ypres) presented a *New Gouge for Removal of Spurs of the Septum*. The older gouges are too large, and the eye cannot follow them when in use. The new instrument is composed of a lamina of about one centimètre in size, the edges of which are guarded, projecting for some millimètres beyond the blade. An incision is first made in the mucous membrane, which is reflected, and the gouge is then applied, and cuts easily. The edges of the gouge protect the neighbouring parts. After removal of the spur, tampons are inserted to arrest haemorrhage.

Dr. BAVER had designed a knife, cutting from behind forwards, which had given him the best results.

Dr. BAYER read a paper upon the *Therapeutic Value of the Hydro-Carbons in general*, and especially of the "vasogenes Klever," with special reference to their use in the treatment of diseases of the respiratory

organs, and particularly of tuberculosis. [This was published in the JOURNAL OF LARYNGOLOGY, October, 1893.]

Dr. NATIER (Paris) related a case of *Fibro-Sarcoma of the Nasal Fossa*. He dwelt upon the insidious progress of this kind of neoplasm. The symptoms are but little prominent at the commencement. There is only a muco-purulent secretion, resembling nasal catarrh, and little haemorrhage; pain is *nil*, or occurs late, and there is obstruction of the nasal fossæ. Severe operations are necessary for these tumours, and are often without result, for, in spite of repeated resections, it is rare that recurrences can be prevented.

Dr. BROEKANT (Ghent) exhibited a young boy, eleven years of age, presenting a *Malformation of the Arch of the Palate*. He had suffered from the nose since the age of four, when he had scarlatina. When seen in August, 1892, he presented many signs of caries of the nasal bones. Antiseptic irrigations and the removal of the sequestra caused disappearance of the foetid secretion and the pain. Old otorrhœa disappeared at the same time. In the course of the treatment the malformation was discovered. It was two hiatus of from twelve to fifteen millimetres in length, and four to five millimetres in breadth, situated in the anterior faucial pillars. No previous affection could account for these losses of substance, and they must be explained as due to arrest of development during intra-uterine life. In 1884 Chiari described a case of malformation of the palate in a child eight years of age, who complained of deafness. There was in this patient a sort of dehiscence of the faucial pillars. Since then a few cases have been described.

Dr. EEMAN had met with an analogous case, but incomplete, as, in place of being a complete defect, there was a depression in the thickness of the anterior pillars.

Dr. GOUGUENHEIM read a paper on *Peri-Laryngeal Abscess following on unrecognized Cervical Caries*. An old woman, aged sixty, was brought into the Hôpital Lariboisière suffering from suffocation and aphonia. Tracheotomy was performed. A great deal of pus flowed, and the introduction of the canula was not at first followed by restoration of the passage of air, but afterwards respiration was re-established, and the voice regained its tone. The next day, when the canula was removed, a purulent collection was found to surround the larynx and trachea. A probe came upon exposed bone, deep down. Shortly after paralytic symptoms appeared, and the patient succumbed to medullary symptoms succeeding to the cervical disease. At the autopsy the sixth cervical vertebra was found to be tubercular, and formed a cavity full of sphaerulated tissue, surrounding the trachea. The particular interest of this case is the direction taken by the pus, and the localization of the symptoms, which were sufficiently limited to lead to error and conduct the patient to the laryngologist. The affection had an absolutely abnormal course. The onset was most insidious, and the manner of its elimination most rare. Generally the pus burrows into the mediastinum.

Dr. MOLL (Arnhem) read a paper on *Idiopathic Laryngeal Abscess*. The case was that of a robust, vigorous man, who consulted the author

for pain in the throat and slight hoarseness. There was slight pharyngitis. The larynx presented a fairly pronounced degree of œdema of the left arytenoid region, with slight inflammation of the left vocal cord and paralysis. The author considered whether he had to deal with a case of submucous inflammation, perichondritis, or arthritis. The diagnosis was difficult. At the end of three days, a perforation of the mucous membrane allowed the flow of a certain quantity of pus. The œdema immediately disappeared, and the pain ceased. In spite of this, the general health deteriorated, fever, anorexia, cough and expectoration increased, and general bronchitis appeared—in short, the symptoms of influenza, of which the laryngeal abscess had been the commencement. Three weeks afterwards the patient was completely cured without any trace of laryngitis. The author believes that this is the first case yet published of laryngeal abscess at the commencement of influenza.

(*To be continued.*)

THE AUSTRALASIAN MEDICAL CONGRESS, SYDNEY, 1892.

(Continued from p. 573.)

Nasal Disease as a Causal Factor in Affections of Adjacent Parts and Distant Organs. By Mr. C. H. SMITH HOZIER.

Laryngologists commonly refer to the nose as an originating factor in affections of the larynx : and even oculists have recorded the cure of eye diseases by nasal treatment. Guye, of Amsterdam, particularly records a case of follicular conjunctivitis sent him by Professor Snellen, and a cure resulting after removal of pharyngeal adenoids, as had been prognosticated. Here it may be desirable to allude to the physiological functions of the nose as a respiratory organ, a fact which, having been comparatively recently discovered, may not be generally known, and which must be considerably useful to us in considering its diseases. Vierordt, in 1845, mentioned the fact of the air being raised in temperature in passing through the nose. In 1864, Nestor Grehant concluded that expired air was warmed to blood heat, and saturated at a temperature of 95° F. In 1880, Rosenthal claimed that the air was warmed and saturated by the time it reached the alveoli ; but the credit of solving the problem, by well-conducted physiological experiments, belongs to Aschenbrandt, of Würzburg, in the year 1886. His results were fully confirmed shortly after by Kayser and by Greville Macdonald, in 1889. They arrived at these conclusions :—

1st. The air in passing through the nose is raised to blood heat by the time it reaches the pharynx, independently of the external atmospheric temperature.

2nd. The inspired air after passing through the nose is completely saturated with moisture. This takes place through the serous exhalation given off by the cavernous or erectile tissue, amounting in normal respiration to 7715 grains, or 16 ounces, according to Aschenbrandt ; the process is controlled by vaso-motor influence, and is thus nicely regulated under the varying and sudden alterations taking place in the surrounding atmosphere.

3rd. An interchange of gases also takes place, carbonic acid being given off from the blood in the nasal mucous membrane, estimated roughly at 1·50 of that given off by the lungs, and varying with the temperature to which the air is raised. The increase in the supply of heat is probably due to increased conduction,

radiation, etc., of heat from the augmented blood supply to the mucous membrane, and partly by direct increase of oxidation in that and the adjacent structures.

When we think of these results, we cannot but be struck with the importance of the respiratory functions of the nose; performing, as the latter does, half or more than half of the work for which we formerly gave the lungs credit. The principal rôle, as we have seen, is played by the cavernous or erectile tissue of the middle and lower turbinated bones, and, indeed, some authors have been so convinced of its importance as to trace a vaso-motor connection between this tissue and the corpus cavernosum penis, causing erethism in the lower animals. At any rate, it is from this tissue that our respiration is daily supplied with 16 ounces of water for saturation purposes, and we can easily see the irritating and injurious effects when this supply is deficient or abolished, in the diseases of the larynx, bronchi, and air cells, incident to being robbed of their natural moisture, for which there is no alternative provision. The irritating effects of inhaling cold, dry, unfiltered air are obvious.

Let us now briefly glance at the effects in the first place of mechanical obstruction, with its necessary attendant evil—oral breathing. Under this heading we have tumours, hypertrophic rhinitis, septal deviations, etc., etc., and as a result of the rarefaction of the air behind the obstruction, congestion, edema, and a chronic catarrh of the various tissues leading locally to the formation of adenoids, retro-nasal catarrh, tonsillitis, pharyngitis, laryngitis, lung diseases, and so on. In the same way such affections of the eye as epiphora, granular lids, corneal ulcer, and even glaucoma (Bronner, of Bradford, and Cheetham, of Louisville) have been recorded. In another direction purulent accumulations in the ethmoidal and sphenoidal cells and frontal and maxillary sinuses take place. The ear is frequently affected, chiefly with chronic mucous catarrh and purulent inflammation, the very severe train of symptoms sometimes ensuing upon the latter, not only locally, but generally, as caries and necrosis of the temporal bone, cerebral and cerebellar abscess, sinus phlebitis, and even ulceration of the internal carotid is well known to every surgeon. Alluding to organs more remote, I may instance the case of a boy of twelve years, with healthy parents, who has been under my care, suffering from double hypertrophic rhinitis with complete nasal obstruction. He is very small for his age, sallow, pale, and wizened, backward in his studies, weighs only four and a half stone, face absolutely expressionless. Is it to be wondered that this boy during the past five years has been a martyr to bronchitis, which I hope to cure through his nose? The above symptoms, as well as the flattened and pigeon breast, abdominal respiration, heavy upper lip, and aprosexial expression, are of frequent occurrence in adenoid obstruction. Another and most important way distant organs may be affected is through the inhalation or swallowing of micro-organisms from a purulent discharge from the posterior nares, as occurs in suppuration of the sphenoidal cells, Tornwaldt's disease, and post-nasal catarrh; besides affections of the lungs, in such cases, we may have a chronic dyspepsia, or diarrhoea, or even in an extreme case, septic intoxication may not be impossible.

In the second place, I propose to bring under your notice the “so-called reflexes,” or rather mechanical obstruction occurring in neurotic individuals. I say so-called reflexes, because taking the physiology of nasal respiration into account, it is to my mind a question to what extent oral respiration, with its attendant evils, plays in such diseases as laryngismus stridulus, hay fever, and asthma, etc., etc. Believing as I do that here the irritation is a direct one on the terminal nerve fibres of the larynx and bronchi, and has no reflex cause whatever, although I am far from drawing any definite conclusion from one or several cases,

still I think the following case, which has been recently under my care, worthy of record.

Miss E. S., aged twenty years, first consulted me on the 6th April. She was a pale, flabby girl, highly neurotic temperament, of very sedative habits, suffered from hepatic congestion, constipation, and a continuous headache, which nothing would relieve, menses normal as to time, but deficient in quantity, pulse feeble, was perfectly worn out from constant cough and sleeplessness, owing to her asthmatic attacks, being obliged to sit up, sometimes in and sometimes out of bed, to get her breath for the last two years. She had but little respite during the daytime from cough and wheezing ; had been under medical treatment at various times, and tried change of air, etc., etc., with little or no benefit. She was extremely faint and broke out into a cold perspiration at her first consultation. I had much difficulty, owing to her nervous condition, in making a nasal examination, and when I did so found apparently, at first, nothing to warrant me in giving a positive opinion. The lungs were full of bronchial *riles*, but there was no emphysema apparent and no cardiac affection. I noticed a slight septal spur on the right side, turbinated bodies normal, but mucous membranes reddened. I prescribed several anti-asthmatic remedies, including inhalations of nitrate of amyl and iodide of ethyl, besides attending to her general health and hygiene. They had no effect whatever. After a little, I noticed swelling of the right lower turbinated, and next day this engorgement had subsided and attacked the left side. Upon questioning her closely I learned that the nasal obstruction invariably preceded the asthmatic attacks, and upon probing certain parts violent coughing fits ensued, but no bronchial spasm. These were uninfluenced by the application of a five per cent. cocaine solution, nor had a ten per cent. spray any effect in cutting short the asthma. Suffice it to say that, after the application of chromic acid, and the cautery several times, the attacks markedly diminished to one every seven or ten days, which I could always predict by a swollen turbinated body on one side or the other. I now noticed the septal spur had so increased in size as to touch the lower turbinated body on the right side. This, with Dr. Knaggs' kind assistance, I removed under chloroform. She has never had an attack since. Is bright, cheerful, and rosy ; breathes freely through both nostrils, sleeps well, can walk up or down hill, and has been equally well in rain, fine weather, and westerly winds.

I now, in the third place, come to the consideration of the reflex neuroses proper, in which the element of obstruction may or may not be present. I was frequently impressed, whilst treating this case, with the theory of Weber, of Leipzig, that asthma depended upon a paresis of the blood vessels supplying the bronchial mucous membrane. The result of the case would tend to prove, if it were needed, the fallacy of the so-called bacterial origin in Curachmann's spirals, which have been proved to be mucin wound into spiral shape in the bronchioles by the laborious in and out breathing. The same applies to Charcot's, or more properly Leyden's octahedral crystals, which are merely disintegrated nuclear bodies. That there are sensitive areas in the nose, irritation of which in neurotic individuals produces certain effects, such as cough, sneezing, lachrymation, etc., etc., is a well ascertained fact ; and it is a question whether we are (in the present state of our knowledge) able to explain this by any other theory than a reflex one, or in other words, can the irritation of the terminal nerve fibres in these sensitive areas, by spur, polypi, etc., etc., alone set up such diseases as nervous cough, salivation, stammering, headache, ciliary neuralgia, facial chorea, blepharospasm. Basedow's disease, and even epilepsy, and yet all these have been reported cured, or considerably relieved by nasal treatment alone ?

A few remarks in conclusion upon the above-mentioned case. At first sight the apparent absence of nasal symptoms, merely a slight catarrh, the small size of the exostosis barely entering into one's calculations as a causal factor ; secondly, the negative effect of cocaine, which is usually considered an important means of diagnosis ; and thirdly, the necessity of perseverance in eradicating, step by step, every possible cause. The only two symptoms in this case which led me to hope for success were the hyperæmia (alternating) of the turbinated bodies and the results of probing. Again, as to occasional failures in treatment ; may they not occur in the first place by insufficient perseverance in the removal of every possible nasal cause *seriatim*? and in those cases in which the nose has been what the Americans term "cleared out," may not the mistake of removing too much be present, thus depriving the nose of its respiratory functions, the very last thing to be desired? On the other hand, let us not fall into the opposite error, as, for instance, removing adenoids, when the cause is probably hypertrophic rhinitis. It is thus only by carefully treating each case on its own merits that we can hope to arrive at a successful result, doing neither too little nor too much ; and by a careful balance of judgment reach the desired goal, and not bring the all important treatment of nasal disease into disrepute.

DISCUSSION.

Dr. T. K. HAMILTON said that we were on debatable ground on the question of nasal reflexes. Asthma was the most important of all. His experience did not bear out the opinion of Hack that all asthma depends on nasal reflex. Yet there is a large percentage of cases of asthma improved, and a considerable percentage cured by intra-nasal treatment. The discovery of the influence of the nasal reflexes was an important advance in knowledge. Physicians now rightly consulted specialists in these cases. He objected to give a general anaesthetic for the removal of intra-nasal growths, as it hampers the operation, increases the bleeding, and embarrasses the surgeon by preventing his getting a good view of the parts. He mentioned a method which was first pointed out to him by Dr. Iredell for the treatment of paroxysmal sneezing, which he had found extraordinarily successful : it was the division of the nasal nerve, where it crosses the septum, with the electric cautery.

Dr. GIBSON said that he examined the nose as a routine practice in all chest cases. He described a soft swelling on the sides of the septum posteriorly as a cause of nasal obstruction. He ties the palate forward and destroys the growths with the galvano-cautery.

Drs. KENNA and KENNY thought that the condition described by Dr. Gibson is a physiological one.

Dr. A. J. BRADY felt sure that the conditions of well-marked outgrowths in this region is not a physiological one. He had seen such a condition produce post-nasal catarrh, with very troublesome hawking and snorting. The symptoms disappeared on the removal of the growths. They were sometimes the site of reflex irritation, and they required to be destroyed as part of the treatment of paroxysmal sneezing. As to paroxysmal sneezing, he had frequently seen a relapse take place, after a period of immunity of six or twelve months had followed treatment by the galvano-cautery. Fresh resort to the treatment generally again arrested the symptoms. He would like to know the experience of others on the question of relapses. For the same reasons as mentioned by Dr. Hamilton he commonly operated under cocaine, and not under general anaesthesia, for the removal of intra-nasal obstructions, but he had operated several times under chloroform. He then plugged the posterior nares, and secured the tampon

through the sound nostril. He could then operate without any embarrassment from the bleeding, so far as the safety of the patient was concerned.

Dr. HOZIER, in reply, said that he approved of the principle of operating without general anesthesia, but in the case mentioned the patient was so extremely sensitive that it was impossible. He had plugged the posterior nares in this case.

On Thryotomy for Papilloma of the Larynx in Young Children. By Dr. ALFRED AUSTIN LENDON (Adelaide).

Papilloma of the larynx appears to be a disease of rare occurrence in young children. With the exception of four cases, so far as I can ascertain, none have occurred in the experience of my colleagues, nor have any been published in the Australian medical papers. These were—

Dr. LENDON's case ("Australasian Medical Gazette," August, 1892).

Dr. CLUBBE's case ("Australasian Medical Gazette," November, 1886).

The case of Dr. T. K. HAMILTON, at present in the Adelaide Hospital, viz., that of a girl, aged seventeen months, in whom tracheotomy and subsequent thyrotomy was performed. The child is now thriving well and learning to speak. Her articulation is clear, but as yet she only speaks in a loud whisper. She is not able to dispense with the tube (May, 1893).

The case under the care of Dr. PERKS, at Guy's Hospital, 1893, of a girl, two years old, in whom a sudden paroxysm of dyspnoea necessitated tracheotomy, without an anaesthetic. Suffocative attacks were very frequent afterwards, and the child could not breathe comfortably without her tube for more than a few minutes. Attempts to accustom her to do without it failed until February 6th, when it was left out till February 12th, and the wound became almost closed. On the last-mentioned date it had to be reopened. Attempts to use the laryngoscope failed, then the tube was left out by day and replaced by night until, on March 26th, it was disused, and the wound again allowed to heal. On April 8th, dyspnoea recurred, and tracheotomy was performed again. Subsequently the child contracted diphtheria, and died on April 23rd, 1893.

REMARKS.

As the symptoms caused by the presence of papilloma in the larynx are so gradual and insidious in their onset, and as they bear a close resemblance to those of other laryngeal affections common in childhood, it is probable that all cases occurring in young children would first come under the care of a general practitioner, rather than that of a laryngologist. It therefore behoves us to be familiar with these symptoms, which are in no way special, but are merely those common to any benign growth of the larynx, and it is remarkable how very closely the history of one case resembles another. As a rule, for a long time, usually several months, the only symptom that attracts attention is a gradual alteration or weakening of the voice (dysphonia) leading ultimately to complete loss of it (aphonia), so that the child can only speak in a whisper, and makes no sound when crying; cough is a very rare symptom, pain is almost unknown, there is no difficulty in swallowing solids, and, indeed, the act of drinking seems to relieve the paroxysms of dyspnoea, which, after a time, commence principally at night, and which lead the parents to seek advice. These paroxysms are easily induced by emotion, and, as a rule, are distinctly inspiratory in character, as one would expect since the growths are usually situated above the glottis. It must not be thought, however, that the diagnosis of such growths is always easy. In my own case I felt confident after a time that there was such a growth present, for the long persisting dysphonia, unaccompanied by a croupy cough, negatived the idea

that it was merely an inflammatory or nervous affection. Now it so happened that some few years ago I had under my care a case of laryngeal obstruction in a little girl, upon whom I performed tracheotomy. The cause of her dysphonia and dyspnœa remained obscure for about three months, when at length a dulness was detected to the right of the sternum and afterwards in the right interscapular region; four months later still she succumbed to a mediastinal tumour, possibly adeno-sarcomatous. Bearing this case in mind I allowed six months to intervene between the operations of tracheotomy and thyrotomy. Of course, the diagnosis is easy where one is fortunate enough to be able to see the growths with the laryngoscope, as in Dr. Clubbe's patient, but this can be seldom done in young children. In Dr. T. K. Hamilton's case, I believe Dr. Hayward, who was familiar with my case, entertained a strong suspicion of papilloma, because warts were visible on the lips, tongue, and skin. In the same way I have noticed the association of papilloma of the bladder and of the wart on the scalp. Digital examination, however, does not appear to be of much use, nor can reliable information be gained by passing a probe, as the warty growths offer no resistance to it.

The prognosis would be very grave if the growth were left alone. Tracheotomy is, however, nearly always required in young children before the true nature of the case is made out, and it is of great advantage in the subsequent treatment of the case, for it renders any operation, whether endo-laryngeal or otherwise, easier to perform and lessens the after risk of oedema of the glottis. It is palliative as regards life, averting the danger of suffocation during a paroxysm, although it must be remembered that tracheotomy has dangers of its own. In my case, on two occasions at least, the house surgeon had to be hastily summoned to the child when suffocation was impending from the accidental slipping out of the tube, and in Dr. Hamilton's case the same trouble was reported. In the cases reported by Dr. Perks, diphtheria was evidently contracted through the tracheal opening. However, besides allowing us to gain time and await developments in a case where the diagnosis is doubtful, and perhaps enabling us after a time to inspect the glottis and establish a diagnosis, and possibly admitting ultimately the removal of the growths *per vias naturales*, tracheotomy may also possibly be curative; at all events it has been alleged that such growths may disappear with the functional rest which the tracheotomy tube affords the larynx. The only positive evidence I can find in favour of the spontaneous disappearance of laryngeal papilloma is, to my mind, not quite convincing, for the writer (Dr. Hunter Mackenzie, "Edinburgh Medical Journal," 1883 and 1884) speaks of a thickened warty condition of the glottis boundaries, which resulted from the chronic inflammation; but in his original communications he did not diagnose warty growths. Still there is some evidence to support this idea of the spontaneous cure of papillomata, for it has long been an accepted belief that old women could charm away warts on the hands, and I have always been taught that the so-called venereal warts will also disappear, if only they be kept perfectly dry with lint. If, however, laryngeal warts may occasionally disappear as alleged, it is singular that no instance is recorded of such spontaneous disappearance in an adult, seeing how much more frequently they occur in adults than in children. Of the one hundred cases which formed the basis of Morell Mackenzie's original essay on benign growths in the larynx, no less than sixty-seven were instances of papillomata, and of the one hundred cases only six were under the age of ten years. The opportunities of observing any such retrograde change would, therefore, be infinitely greater in adults. Whether a preliminary tracheotomy has or has not been performed, whenever in a young child either growths have been

detected or there is a reasonable suspicion that they exist, the question will arise as to whether they should be removed by thyrotomy or by an endo-laryngeal operation.

Now, some twenty years ago there was waging a bitter wordy war, in which Dr. Morell Mackenzie and Mr. A. E. Durham were the principal antagonists. Their arguments, however, still seem to me to hold good, for their differences of opinion were not in reality very serious. Mackenzie enunciated his oft-quoted dogma that thyrotomy was only justifiable when there was danger to life from suffocation or dysphagia, and then only provided that an experienced laryngologist had pronounced it impossible to remove the growth *per vias naturales*—to which someone has added “and then only provided that an experienced laryngologist has attempted to remove it.” There can be no doubt that endo-laryngeal operations may be successfully performed upon young children by men possessing the marvellous manipulative skill of a Morell Mackenzie. Indeed, long before the days of cocaine, he removed growths from children aged six, five, and four years respectively, and Prof. Paul Bruns states in his work that several instances are on record in which the endo-laryngeal operation has been successfully performed in children six months old; but until the general practitioner attains to this degree of skill, and whilst cases occur in places in which patients cannot avail themselves of the services of such skilled laryngologists, there will still be occasional instances in which it will be necessary to divide the cartilages.

Thyrotomy does not seem to be very dangerous to life, nor difficult of performance as a rule, though both danger and difficulties may be met with. The chief dangers are avoided by a preliminary tracheotomy, and by operating with the head in a dependent position; but as regards the voice there is very great danger, as statistics show that its recovery is the exception rather than the rule. Recurrence is very frequent after thyrotomy—in thirty-five per cent. of cases either it is impossible to remove or destroy all the papillomata, or else the growths do actually recur; my own impression is that they are not destroyed, and that young budding growths escape, and continue to grow. The operation may, however, be indefinitely repeated, and a good result finally obtained. Recurrences are stated not to be so frequent after the intra-laryngeal operation, but these are performed at numerous sittings.

As regards the *technique* of the operation in a future case, I should be inclined not to wire the cartilage together as Mackenzie did, or sew it with silk, as I did myself, but to trust to the alae falling naturally into correct apposition.

Lastly, as regards the causation of laryngeal papilloma, I am inclined to think that chronic hyperæmia and chronic catarrh of the mucous membrane are scarcely satisfactorily established as predisposing causes, seeing that there is proof that such growths are occasionally congenital, just as we know them to be in other situations, and if croup and pertussis, as is alleged, also predispose, how is it they are not much more frequently met with? It is more probable, to my mind, that the growths may give rise to a pseudo-croup before they are large enough to cause aphonia or dyspnoea, and that the effect is mistaken for the cause of the growths. Pathologically, papilloma is considered by Virchow to be a species of fibroma, and he denies the existence of any special fibromatous dyscrasia, but when we meet with cases in which warts on the skin are associated with papillomata of the larynx, of the tongue, lip, and bladder, one feels that there is something more than mere coincidence in the association. I was at a loss to understand how papillomata should arise from the mucous membrane of the larynx, until I found that the explanation had been given by Fauvel (“British Medical Journal,” January 20th, 1877, p. 73), who quotes a discovery by Coyne.

that papillæ exist "in the free borders of the vocal cords, especially in the anterior half of the larynx."

The manner in which the growths are seen to be confined to the neighbourhood of the cords, and the appearances depicted in some fatal cases, suggest that from an original papilloma others may arise by infection. Not only is this consistent with the belief in the contagiousness of warts on the skin, and the well-known fact of the infection of the peritoneum with papillomata, after the rupture of a papillomatous cyst of the ovary, but it is also possibly an explanation of the frequent recurrence of laryngeal papilloma if we suppose the parent growth to have been removed, and the secondary growths to have escaped notice at the time of the operation.

The Bearing of Certain Conditions existing in the Naso-Pharynx upon Tympanic Disorders, and other Derangements of Neighbouring Membranes. By Dr. W. F. QUAIFE.

Catarrh of the mucous membranes is defined by Jonathan Hutchinson in these words:—"A brief, nervous fever preceded by a rigor, and attended by "increase of temperature, great sense of chilliness, and much general discomfort. "It is always symmetrical; always due to reflex disturbance, never to local "irritation. The products of catarrh are infectious; catarrhs, being neurotic, "observe stages, and show a tendency to subside spontaneously." From the above remarkable words it is very clear that this authority makes a sharp distinction between catarrh and inflammation, a distinction not equally heeded by some other writers. Macdonald, for example, seems to confuse these two conditions etiologically. The truth appears to be that inflammation, not catarrh, is produced by local irritants; catarrh, not inflammation, is produced by moist atmosphere, and sudden changes of temperature acting upon nerve ganglia, in some way susceptible to their influence. Whatever fine distinctions may be based upon the etymology of the word *catarrh*, the soundness at bottom of Hutchinson's definition cannot be doubted. In the beginning of an attack of this nature there is certainly no inflammation of the parts. The local circumstances attending inflammation are substantial changes in the walls of the blood vessels, and the tissues outside of these. In a catarrh, on the other hand, there is at first only a change in the calibre of the vessels—to begin with, a contraction, which is followed by a dilatation with increased flow of blood to the parts. It is only when a condition of stasis has been induced that a venous hyperæmia sets in. The cell elements within the connective tissue are stimulated to abnormal activity, in which new cells are generated; there is excessive secretion of glands, and abundant transudation of the liquor sanguinis. Hence, we may set it down that the more extreme the action of the vaso-motor nerves the greater the cell-generation, and the less mature the cells with which the surrounding tissues become packed. The actual irritation which causes this packing of the tissues with leucocytes appears to be the venous hyperæmia which exists in the part, setting up, as it does, a stasis in the lymphatic spaces of fluids overladen with crude and poisonous products, such, for example, as uric, lactic, butyric, and in some cases acetic and oxalic acids. The cells once laid down in the tissues of a part where the lymphatic circulation is not easily re-established, commence in a very short time to undergo those metamorphoses which are characteristic of what is, I think, not very properly called "chronic catarrh." And the actual varieties of this chronic inflammation in different parts of the respiratory passages—whether there be hypertrophy, atrophy, or ulceration, or the formation of neoplasms—depend almost entirely upon the *occasio loci*. The peculiar features indicating syphilis, diphtheria, tubercle, appear

to me to be superadded, as it were, to the essential phenomena of inflammation, rather than to present an essential distinction from them.

Exactly similar changes go on in special structures of mucous membrane, named closed follicles or tonsils, according to their situation in the tract. There is no essential histological distinction between the solitary follicles and Peyer's patches of the intestine, and the tonsillar structures of the base of tongue, fauces, and naso-pharynx. These are all structurally lymphatic glands, being composed in substance of two or three kinds of round cells, enclosed in fine meshes of connective tissue and with certain lymphatic channels running through them in specified directions. The faecal tonsils, and the follicles of intestine are more specially enclosed in fibrous tissue capsules, on which many of the symptoms of their inflammation depend. So far as we can gather from observations, the tonsil has in health, at any rate after birth, no function whatever to fulfil. It certainly is not secretive, and Hodenpyl, an American observer, has not been able to discover that it is absorptive, excepting where the epithelium covering it has become rarefied; under these circumstances—it is interesting to add—he thinks the diphtheritic poison may be absorbed, but he has never seen any proof of the absorption of the tubercular virus. There is, however, every probability that being of the same structure, for example, as the glands of the axilla, it has a like function, the absorption of lymphatic fluids—in this instance from the neighbouring mucous membranes. And we know that the solitary follicles of intestine do swell up in diseased conditions of that membrane. We can, therefore, only believe that inflammations of the tonsil are in the first instance a consequence of inflammations of pharynx, naso-pharynx, and parts adjoining.

The question as to the simple hypertrophy of the tonsil being possible without previous inflammation may, I think, be very shortly answered in the negative. No satisfactory or plausible proof of it has ever been adduced; and what Morell Mackenzie means when he speaks of "congenital causes" is by no means clear. It is very unlikely that an inflammatory hypertrophy of the tonsil is ever primary. It appears to be secondary in its nature, and the primary inflammation is no doubt overlooked because from one cause or another its symptoms are either trifling or disregarded.

There are many examples known to the pathologist of passive hyperæmia causing hypertrophy. It is sufficient to mention the three great organs of the body—the heart, liver, and kidneys, for instance; and it is specially marked in many of its forms in subjects suffering from the syphilitic and strumous dyscrasies.

But now, allowing that an inflammation of the tonsil is secondary to that of the surrounding membrane, how does it come about that the tonsil hypertrophies, and not usually to any extent the membrane? In the *first* place, the tissue is more spongy, and therefore more exposed to the lymphatic stasis; *secondly*, the tissue liable to proliferate is much more copious in the gland than in mucous membrane; and in the *third* place, the situation of the part allows it to expand mechanically with great ease in the direction of least pressure, which, as it happens, is towards its fellow. Finally, one cannot omit to mention that curious, and in many cases very latent and inexplicable, tendency which exists in many young subjects towards a special proliferation of lymphatic cells. This at least, so far as I have yet learnt, is unexplained, being associated somehow with the deeper mysteries of bioplasm and heredity.

And now with respect to the tonsil of Luschka, we may premise that it, situated as it is in the naso-pharynx on its posterior wall, has exactly the same histological structure as the faecal tonsil, but differs therefrom after some fashion as a fish's gill differs from an amphibian's lung, being pedunculated and free in an

air cavity, while the other is incarcerated deeply on most sides in a strong fibrous capsule. Unfortunately for the analogy, there is no likeness of function, for under no ordinary circumstances is there any absorption of fluid. On the other hand, I believe the tonsillar function to be exactly the same in the two instances. Luschka's tonsil expands under like conditions of passive hyperæmia, and its tissues proliferate into the large open cavity that communicates with nose, ear, and throat. It has often been remarked how pronounced it is in many cases of cleft palate. The reason appears to be connected partly with the increased size of the cavity, partly with the direct suction of the tongue upon the naso-pharynx, and partly perhaps the irritant action of the food coming in contact with it.

But the symptoms of tonsillitis are often very severe and even urgent. How does it happen that an inflammation of Luschka's tonsil is never so acute? In answer to this, it is certain that in many cases the actual inflammation is just as severe. If the symptoms are not so pressing, that is due to the anatomical arrangement of the structures. The pain in an ordinary quinsy appears not to be intrinsic, but due to tension of the surrounding sheath; otherwise it is more truly a sense of discomfort in swallowing, breathing, and speaking—certainly at times very severe—and a general *malaise*. The proliferated masses of Luschka's tonsil differ from those of the faecal tonsil in being arranged more or less on pedicles, and in projecting almost wholly free into the cavity, and thus the tension expends itself entirely in expanding the nerveless and insensitive body of the vegetation into that cavity. And as nearly the whole discomfort of the inflammation of such tissues arises from an external resistance to the tumefaction it will at once be seen why the adenoid growths, as they are called, are so free from symptoms.

But, on the other hand, they are not free from symptoms; they have a very distinct group of their own. It is comparatively seldom, excepting in the specific fevers, such as diphtheria and scarlatina, that we recognize their enlargement accompanied with *malaise* and pyrexia; and yet this may be sufficiently accounted for by the statement that an ordinary severe feverish cold seldom can cause enlargement enough to set up the symptoms indicative of their presence. We are not aware of their existence except when they become large enough to cause obstruction mechanically. And if the parts could be readily laid bare to the light of day, we should, much oftener than at present, be aware of an enlarged tonsil of Luschka, when we supposed ourselves to be suffering merely from an ordinary bad feverish cold. It is only because of the difficulty which is supposed to be connected with the use of the rhinoscopic mirror that hypertrophies and enlargements of this gland are so little recognized: and yet, in my own practice, it is but a very small percentage that I have failed to examine in this way, while of the remainder quite half have had an appreciable swelling of the structure in question. Furthermore, I believe it to be the case that precisely those throats which from their configuration are most easily inspected, are most liable from one cause or another to suffer in this way. It appears to be more the rule than the exception to find some degree of disorder of this gland; for its recognition at all as a source of trouble we have to thank the rhinoscopic mirror. I have often seen the gland more than half filling up the naso-pharynx, acutely congested, and bathed in discharge, and with white masses of denser secretion oozing out from between its bosses, just as they do from a faecal tonsil. I have, in fact, seen nearly all the visible features of a quinsy repeated upon this more occult gland. The exception is abscess; in the true sense of the word, this appears very seldom to form in naso-pharynx. Bosworth has well remarked that a mucous sac continues to secrete mucus so long as the exit is free, but that when its mouth becomes closed the secretion being under tension gradually takes on a more and more purulent

character. This is probably the *rationale* of some cases of tonsillar abscess, and if it be so the absence of crypts in the tonsil of Luschka explains why abscess is there so uncommon. I have certainly opened in operating what seemed to be a small collection of pus, but as there was evidently no particular tension of the part it was probably a product of degeneration going on within one of the pedicles. Unfortunately, no microscope was at hand to settle the point.

Clinically, then, the chief indication of these adenoid vegetations is the obstruction which they cause to proper ventilation of the passages, and the congestion of the veins and lymphatics leading from surrounding parts. Even when fairly small they thus encourage mucous discharges from the membranes of nasopharynx, nose, and tympana. And the tympanic cavities in particular, being so nearly closed, are readily deprived altogether of their ventilation : the air within them becomes rarefied, the membranes are indrawn, the ossicles fixed, and other secondary inflammatory changes follow in both middle and inner ear, which there is no need to dilate upon in this place. Many of these changes may follow, as Bosworth has shown, without complete closure of the Eustachian tubes. In the severer degrees of adenoid enlargement these aural changes are much intensified, and others begin to exhibit themselves in parts of the nose nearer the free air. The mucous membranes covering turbinals, septum, and floor of nares swell up in the most remarkable way, still, however, remaining very often quite pale, and apparently not hyperemic, and they become bathed in their mucus. And externally, the nose, as a feature of the face, appears to contract bodily, the alæ and bridge seeming to close in upon one another, and very often no current of air passes through the nose at all. In connection with this nasal obstruction we find very often, as might be expected, lachrymation and tenderness of the eyes. So far as I have seen it is only in the very worst cases that the peculiar mental condition, aprosexia, is developed. It is pretty certain that this is an actual condition, and not an apparent one due only to deafness or childish inattention.

In one of my cases, a bad one, it was excessively marked, so that the boy—unlike the rest of his family in this matter—had apparently no natural bent towards any intellectual or physical excellence, except in the bull-headed pastime of football. After the removal of the vegetations his teachers began soon to detect a change, and he was set to learn Euclid. The cause of the want of mental grip to which this imposing name has been given is ascribed to a state of lymphatic stasis at the base of the brain. I suppose some such explanation would receive the approval of Dr. Batty Tuke, and others of the material school of insanity. It is certainly hard to conceive any other, when we recall to our mind the many minute foramina communicating between the cranial cavity and the nasal passages, and the fact that this mental condition is common in bad cases of nasal polypus.

A necessary consequence, of course, of obstruction of the nose and post-nasal passages is that the patient must breathe through the mouth, and the snoring so much complained of at night is merely the vibration in the passing current of air of a relaxed and paralysed soft palate. In a young child suffering from this trouble, especially if the faucial tonsils be at the same time enlarged, it will often be found that the chest walls cannot expand properly, and that the sternum therefore is bulged forwards. Many of these cases are, whether as a cause or consequence, anæmic.

A thorough examination of the nasal passages, anteriorly with a speculum and probe, posteriorly with a rhinoscopic mirror, will always decide the matter.

In very young children, however, extraneous circumstances usually prevent anything more than a passing glimpse with the mirror ; if this be insufficient to

give even a shrewd guess at the state of the part, we may find on inspection of the pharynx with the bright light that the soft palate is more or less convex, and bulged downwards by a body behind it. It may be felt by the finger to be so. Often some diminutive portion of the vegetations takes origin in the pharynx ; but, on the other hand, the lower margin of the seat of growth is often very sharply defined, the as it were, by pressure of the edge of the soft palate against the posterior wall of the pharynx. It thus becomes necessary to clinch the diagnosis by inserting the upturned forefinger of one hand quickly and steadily behind the soft palate, the child's head and limbs being firmly held the while, and the examiner's hand, if he be timid, protected by a bit of a glove against the sharpness of the child's tooth.

In such a case as I have just described, operation is always somewhat urgent, and its neglect will cause serious injury of the tympanic membrane. Young children should always take an anaesthetic, chloroform given with a Junker's improved inhaler being preferred ; older patients may be operated upon without. In the former case, of course, the instrument is inserted into the naso-pharynx in the dark, and the operator is guided partly by the tactile sense conveyed through the instrument and partly by occasional use of the forefinger. This method of operating is certainly rapid, the whole of the cavity being often cleared in a quarter of an hour ; but I am quite certain it is not without care very thorough, for I have occasionally found that small tags which were quite impalpable to the finger at the time of operation have afterwards blossomed into vegetations full-grown, though certainly not very extensive. The anaesthetic, moreover, is objectionable, being a source of risk and inconvenience. It is much better, if possible, to operate under guidance of the rhinoscopic mirror ; it usually takes several sittings, but one can have visual assurance that everything is gone. Pain and reflex movements can be pretty well annulled by the use of "milky cocaine." The only satisfactory way of getting room in the throat is to tie the soft palate forwards by means of a small tape passed through the nose ; even this is not invariably required. As for instruments, there seems no question that Löwenberg's lateral and Mackenzie's antero-posterior cutting forceps are the best. I also use a curette in young children for scraping off the remnants. The galvano-cautery is not practical in these cases ; the wire slips off the growths very easily, and fails to catch them ; and the scar which is left by burning the roots of the growths is so extensive, if the cauterization be thoroughly carried out, as to endanger subsequent dryness of the parts from destruction of the mucous and racemose glands. And the destruction of mucous membrane does not need to be so widespread. As for Meyer's ring-knife, and other instruments which have to be passed through the nose, their applicability is necessarily limited, firstly by the very much contracted and sometimes almost obliterated passage through which they have to be directed, and, secondly, by the small area which they cover in the naso-pharynx. In operating under chloroform, or in a very small child, a Ferguson's gag would receive the preference ; but gags are very much in the way where the subject will open his mouth voluntarily. As for those cylindrical mouth specula which are supplied in nests, they are useless, and even dangerous.

The result of the removal of the vegetations is the relief of all the symptoms in a few days. Even where the physical features of the drumheads are organically and seriously altered, it is almost without exception that some increase in the hearing and relief of tinnitus takes place after suitable treatment, but without much alteration in the local appearances. This arises from the fact that the aural disorder is generally in these cases fairly acute, and has never gone on to the formation of fibrous adhesions and to atrophic conditions of the mucous membrane.

I have, however, lately had one case in which there was no advancement made in the hearing. This was a child of eighteen months, weakly and strumous, in which there was at the beginning no perception even of the loudest and most explosive sounds, the drumheads being deeply sunken and leaden-coloured in a way which, though no syphilitic history could be got, was very suggestive of it. The probability was that serious infiltration of the labyrinth had here already taken place, and the child was operated on as much to improve its health as its hearing.

As for the after-treatment of these operative cases, there is usually more or less fever at first, which may or may not require attention. All discharges should be removed by means of an atomizer with some alkaline antiseptic fluid passed through the nares. The child is usually about on the third day. The ears require attention as soon as the sores have sufficiently healed up to admit of the passage of a catheter, and the tympana should then be inflated with suitable vapours to meet each case. In some of these cases the final result is complete restoration of hearing.

I have here been describing what should be done in a severe case of adenoids. There are other cases varying in severity from the least to the greatest; it remains to say a word upon the treatment of the lesser forms. We enter here upon a matter involving some consideration and judgment. As elsewhere the touch-stone of treatment is the necessity of intervention; and so long as no danger to important organs and functions is threatening, the vegetations may be allowed to remain. But, on the other hand, it is a very remarkable thing how often in nearly all forms of ear disease, the congestive more especially, we find the naso-pharynx and other parts of the respiratory organs suffering in common, usually with a like congestion; and if the arguments I have just been upholding have any soundness in them, it stands to reason that treatment of enlarged and congested naso-pharyngeal tonsils will bear good fruit in the improvement of the tympanic membrane. But, it will be said, this good effect is due to a change in the state of the naso-pharyngeal mucous membrane, and not of the glands. Now it appears to be seldom that an alteration in one mucous membrane of the body occurs in consequence of a derivative action upon another. In such derangements of the tympanic and naso-pharyngeal mucous membranes as we are discussing it would seem judicious where the pharyngeal tonsil is enlarged, but not so much as to prompt removal, to apply the more sedative and less irritating pigments and insufflations. A few strokes with a galvano-caustic point will often do wonders in absorbing the hypertrophied tissue. Iodine in its various forms is most useful, either painted on the part in the form of the tincture, or applied as iodoform or iodol. The camphors and stearoptenes are most excellent in their place. Tannic acid must be applied to the naso-pharynx with considerable caution, because of the irritability it often excites. Of course, in many cases, before these substances can be applied to the parts it is necessary to remove a more or less glairy or incrusted layer of mucus. A solvent alkaline spray is then useful to begin with, to which may be added camphor, menthol, salicylic acid, thymol, terebene, or other substances as the individual case may suggest. But in all cases it is most important to secure that the mucous layer be removed; otherwise the local pigments and insufflations will do more harm than good. Under such treatment as this it is quite usual for the smaller hypertrophies to subside so much as to give no practical trouble, and for the nasal, post-nasal, and aural symptoms to improve accordingly.

I may wind up these few remarks with the statement that as time goes on I am increasingly satisfied how important it is in ear affections to pay particular attention to the state of the naso-pharynx.

Case of Parasitic Disease of the Pharynx. By Dr. JAMES ADAM DICK.

In this case the patient, who is a young, strong, healthy man, had his attention called to his throat about five months ago. He then noticed a rough grating sensation on moving his tongue, and upon examining his throat he saw two small white patches vertically arranged on the right side behind. Probably the spots had been there for some time before they were noticed. Therefore, the affection may be more common than expected. He has complained of no other symptom; on the contrary, he is quite healthy, never having weighed heavier or felt better than at present. On examination of the patient there were no inflammatory appearances to be observed in the mouth, or pharynx, or any other part. But on very careful examination of the spaces between the anterior and posterior pillars of the fauces, extending from the palate above to the tongue below, on either side there were to be seen a few small scattered excrescences, some of which were coloured white, others were white with black summits. These spots or excrescences or nodules are found to vary from two to three millimetres long and from one to two millimetres thick. They are hard, and present a horny sensation to the touch. They are not stony or chalky. It is very difficult to dislodge them from their position, especially those that are located in the crypts of the tonsils, which organs are not well developed in the patient. When first seen, the nodules appear as small, scattered white dots the size of a pin's head, and might easily suggest diphtheritic patches—some of the spots appear to coalesce; later on, the dots grow into nodules, and their summits assume an inky black appearance. The largest nodule removed has been the size of a double-pica letter O, and there never have been more than five on the same side at one time. Microscopic examination of the nodules has shown that they are composed of a vegetable parasite, between the mycelial threads of which are numerous hard epithelial squames. The black colour of the summits of the nodules is apparently due to black spores. I have not had an opportunity to make any cultivation experiments. Dr. John Gibson, who has kindly examined the preparations, considers the fungo to be an aspergillus, probably aspergillus nigrescens. Ordinary antiseptic applications have been applied, notwithstanding which the nodules recur. Of late no energetic measures have been used, in order that the patient could be exhibited before the Congress. Unfortunately for exhibition purposes, there is exceedingly little to be seen at the present time. On looking up the literature of this subject I find that parasitic disease of the mouth and pharynx in this form is agreed by the writers to be rare. Morell Mackenzie does not bestow much attention on the subject. Lennox Browne, in the third edition of his work, "considers fungoid disease a rare affection, he has only seen a few cases, "and in every case leptostrix was the prevailing parasite present." MacBride describes a parasitic affection of the pharynx under the term pharyngo-mycosis. He does not mention that he has met with any cases. Ziemssen's Encyclopædia contains an article by Fränkel on the subject, but there is nothing special in it. Butlin, in his "Diseases of the Tongue," describes the so-called "black tongue," but does not mention parasitic disease of the pharynx accompanying it. Schech, in his "Diseases of the Mouth, Throat, and Nose," gives the best account of parasitic throat affection; under the term "Pharyngo-mycosis Leptostricia," he describes cases very similar to the present. He speaks of "whitish or grey, soft "or horny, pedunculated tubercles or thorn-like excrescences, affecting the tonsils "alone, or along with the base of the tongue, causing severe or trivial symptoms. "These tubercles microscopically examined are found to consist of numerous "organisms which have not yet been named. In one case the nodule consisted "wholly of bacilli and roundish cocci: in another case, published by Eugen Fränkel "and analysed by Sadebeck, a bacillus was found appearing in tufts: and in six

" other cases Heryng came to the same conclusion as Klebs, that the fungus mass " consisted of lepto-thrix." All authorities agree not only in the rarity of similar parasitic affections, but also in their obstinate persistence and usual innocence. For further treatment I propose to thoroughly curette the parts and apply strong bichloride and mercury solution ; failing that, the cautery will be used.

Combined Vapour-Inhaler, Tympanum Inflator, and Nasal and Aural Insufflator. Devised by Mr. H. PAYNTER SLOGETT.

The demonstration of this apparatus was, owing to the inventor's absence, not given, but the following are extracts from his notes on the subject :—

" This little apparatus was devised as an auxiliary in the treatment of various middle-ear affections, and associated morbid conditions of the throat and nose ; it, in fact, affords a simple and effective means of applying volatile remedies in a vapour form to the mucous membrane of the entire respiratory tract, including those diverticula which extend by way of the Eustachian tubes into the middle ear.

" The essential portion, which I originally used as a vaporizer, accessory to Politzer's bag, is a hollow cylindrical case of thin metal with a screw-on cap, and at each end a good-sized perforation with incurved edges. The end of the cap is ovoid, the better to fit the nostril. Within the box is a roll of absorbent paper folded so as to offer a large surface for volatilization without impeding the rush of air ; this is to receive the desired medicament in a liquid form. A thin glass cylinder (with incurved ends), which exactly fits the interior of the box, and itself holds a similar roll of absorbent paper, is to replace the roll in the metal case when the medicament used is such as acts chemically upon the metal. About nine inches to ten inches of rubber tubing of quarter inch calibre is attached to the end of the metal case, and the free end of the tubing slips over the nozzle of Politzer's bag.

" A glass mouth-piece attached to the free end of the rubber tubing renders the apparatus an *auto-inflator of the tympanum*, by means of which a patient can inflate his own tympana with the vapours of suitable volatile remedies applied to the absorbent paper within the metal case. To do this he has only to adjust the conical end of the metal case to one nostril, close the opposite one with pressure of the finger, and blow—a smart puff—through the mouth-piece ; the muscles which raise the soft palate to cut off the air current from the nose in the act of blowing through the mouth, simultaneously opening up the cartilaginous portion of the Eustachian tubes.

" By means of the same little contrivance similar vapours can be applied to the whole mucous lining of the naso-pharyngeal cavities, the patient blowing gently and continuously through the mouth-piece, and inserting the nose-piece into one nostril, leaving the other nostril unclosed. Such application can be continued for a considerable time without fatigue or inconvenience, and in different forms of nasal catarrh, ozæna, and coryza I have found it both beneficial and comforting ; stimulant, sedative, antiseptic, or alterative remedies being used according to the indications."

The author then proceeds to note its use as a dry inhaler and as a steam inhaler, also as a powder insufflator, and gives formulæ which he has found of service in connection with the apparatus.

THE GERMAN LARYNGOLOGICAL SOCIETY.

Meeting November 3rd, 1893.

LANDGRAF gave expression to the satisfaction felt by the Association at the establishment of a laryngological clinic, under the supervision of Dr. Fränkel, who, on his part, returned thanks for these congratulations.

SCHADEWALD, of Berlin, was elected librarian of the Association.

HEYMANN showed a case of *Papilloma of the Tip of the Tongue*.

LUBLINSKI reported a case of *Papilloma* the size of a cherry, situated on the edge of the hard and soft palate.

HEYMANN then showed three cases of *Syphilitic Growths in the Pharynx*.

(1) A woman, aged thirty-one years, was infected four years ago. In December last an ulcer about the size of half-a-crown was noticed on the lower pharyngeal wall, which, despite antiseptic general and local treatment, spread over the posterior velum and epiglottis. On account of intercurrent peritonsillitis, accompanied by acute dyspnoea, tracheotomy was performed, and rapid cicatrization took place under application of preparations of iodine. Her condition now is:—Cicatrization of the palatine arch with the posterior pharyngeal wall, leaving only a small aperture. Formation of membrane between the base of the tongue and posterior pharyngeal wall, which is perforated (not quite in the centre) by an oval opening of small diameter. The epiglottis has grown together with the base of the tongue in a shapeless manner. The motor power of the right half of the larynx is impaired. Heymann believes that the operation upon the larynx essentially influenced the healing of the ulcers.

(2) Syphilis hereditaria tarda; first appearance at the age of fifteen. Now, cicatrization of the palatine arch with the posterior wall of the pharynx, defect of the uvula, perforation of the hard palate, thickening and immobility of the right arytenoid cartilage. Below the vocal cords is a membrane covering about four-fifths of the glottis.

(3) A girl, eleven years of age. Cicatrization of the velum with the posterior wall of the pharynx, scar on the base of the tongue, membranous scar underneath the destroyed vocal cord, cicatrization of the false vocal cords. On the face a skin affection, considered by Heymann to be lues, although the patient showed reaction after injection of tuberculin.

A. ROSENBERG. (1) Primary affection of the left tonsil. Deep ulcer, with infiltrated hard edges. After about six weeks roseola and mucous patches. Patient used the same coffee cup as a fellow-labourer, who proved to have been affected with a specific disease.

(2) Deep ulceration of the base of the tongue. Defect of the epiglottis. Epiglottis irregularly grown together with the base of the tongue. The right false cord and vocal cord swollen, red, and partially paralysed.

(3) Epiglottis considerably drawn backward by scars in the aryteno-

epiglottidean folds. The left arytenoid cartilage missing. The vocal cords adducted show only a triangular gaping fissure in the posterior third of the glottis. By the use of bougies the abduction of the vocal cords is now possible as far as the cadaveric position.

DEMME showed a preparation from a woman with destruction of the septum narium and total atrophy of the turbinate bone from syphilis.

During the discussion BEHRENDT remarked that the skin affection in Heymann's case (3) must be considered to be lupus, since the ulcerations after removal of the scab were covered with indolent granulations.

LUBLINSKI took the same view.

B. FRÄNKEL could not acknowledge the formation of membrane in the pharynx and larynx as a characteristic of syphilis, since he has observed in tuberculosis also the formation of membrane between the false cords.

SANDMANN described a method of demonstrating graphically the expiratory function of the nose. He uses for this purpose pieces of cardboard covered with slate-paper (*Schieferpapier*). These are held horizontally in front of the nose. The formations produced upon these by the breath are developed with a precipitate of sulphur and fixed with siccative. If the nose is of normal formation the figures produced are of butterfly shape, correspondingly modified in cases of stenosis.

SCHEINMANN considered this process of no value, since it does not indicate the power of inspiration.

SANDMANN contends to have found from physiological experiments a certain intimate relationship existing between expiration and inspiration.

At the close of the session P. HEYMANN explained Onodi's laryngeal manikin, admirably adapted to show the nervous system.

Edmund Meyer.

SOCIETY FOR INTERNAL MEDICINE (BERLIN).

Meeting held the 6th November, 1893.

A. FRÄNKEL.—The diverticula pulsionis of the œsophagus originate in all probability through the dilatation of the wall at a spot which, through traumatism, has become yielding. They are seated near the cricoid cartilage upon the posterior wall, and develop to a considerable size (ten to fifteen centimetres), compressing the œsophagus so much that a probang if introduced generally passes into the sack of the diverticulum instead of the œsophagus. The diverticula of traction are seated on the anterior wall at a level with the bifurcation representing funnel-shaped projections. They originate from the sloughing or shrinkage of bronchial glands, which by their contraction draw the anterior wall along with them.

Ulceration frequently begins at the point of the funnel, and thus perforation of the wall of the œsophagus is caused. Thus particles of food find their way into the trachea, the ramifications thereof, or into the pleura or the mediastinum. In this manner originate gangrene of the lungs, sanious pleuritis or mediastinitis. Fränkel showed specimens

from two patients who had died in his department from gangrene of the lungs, both illustrating this genesis in the plainest manner. In a third case, also reported by Fränkel, the same cause is to be found. Here, however, the diverticula of traction would have been overlooked, and the origin of the disease would have remained unrecognized if Zenker's method of dissecting the œsophagus had not been adopted.

A Case of Pulsating Larynx.

LITΤEN observed in an elderly patient a violent pulsation of the larynx and the trachea, so that the former was slightly raised and forced to the left with every cardiac systole. This rendered a laryngoscopical examination very difficult, because the beating of the larynx made it impossible to obtain a definite reflection. Beyond this nothing was found of a pathological nature in the larynx. The heart was sound. The innominate artery could easily be felt in the slender neck, like a thick, violently pulsating cord. Aneurism could not be proved. At the *post-mortem* the following vascular anomalies were found: From the aortic arch originated an artery (*thyroidea ima*) between the subclavian and carotid arteries, which ran upwards over the trachea. The innominate artery was double its normal length, and three times its normal diameter. There was thus no doubt that this abnormal vascular growth, which partially covered the right half of the larynx and that of the trachea, was the cause of the pulsations of the larynx so plainly visible. *Edmund Meyer.*

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